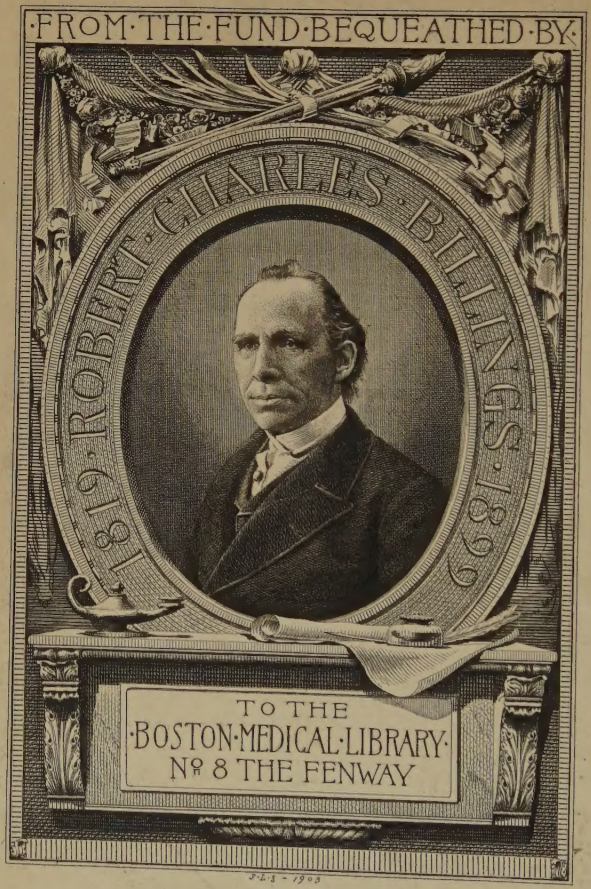
A Doctor's Idle Hours

By

"SCALPEL"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A DOCTOR'S IDLE HOURS

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BY

"SCALPEL"

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TO

MY WIFE

"*A clear stream flowing with a muddy one.*"

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A DOCTOR'S IDLE HOURS

THE NERVOUS TEMPERAMENT.

THREE men stood one fine autumn morning on an eminence looking into a beautiful English valley, at the bottom of which a brook crept on its busy way. The whole scene was bathed in quiet calm. The air was clear and still, the distant but distinctly heard sound of human voices, some men engaged in labour, some children at play, the varied colour of the trees, and the aspect of the cattle formed a picture good for the mind and helpful to the body. One of these men was a thinker, who had the taste and tendency of a painter, and as he gazed on the scene he said, "No man can paint this picture; it is so varied that it is impossible to conceive the hand of any one being subtle and gifted enough to catch the feeling and tone of what lies before us. I should like to sit here and bathe in this natural beauty,

and try to get into my brain and my organism the life which I see and feel around me."

Another of the three was a doctor. He said, "I should like to bring down here all the pale-faced women and children from a large city. I should like to let them live out on these hills and to breathe night and day this sweet, bright, fresh air. This is the place to make red blood in. I should also like to bring those poor little creatures with big heads, old-fashioned faces, and bent limbs into these fields and let them grow up unhindered in the open air. Then we should see how their limbs would straighten like the beech trees on yonder hill, and their cheeks redden like the cheeks of those apples."

Number three was a farmer, who, leaning on his gun and smoking an old pipe, said, with a quiet smile on his face, "What a grand place for a snipe."

The three men were all acted upon by the natural panorama before them in a different manner.

Let us take another example. If four men were to walk four miles quickly and get hot, and after that to sit with their feet in cold water for half an hour, the probabilities are they would be influenced in different ways. One might have pneumonia, another rheumatic fever,

a third kidney disease, whilst the fourth might escape any form of illness.

If we take an example from such a common affection as toothache we shall discover the same difference in the expression of suffering. In a similar way moral influences will affect individuals in divers ways; there are some men, and many women, who will stand up against the most biting calamity without flinching, whilst others will collapse before any common worry. In point of fact, there seems to be no limit to the varied sensibilities of humanity.

If we look at the varied canvas as painted by the hand of disease, we shall meet with the same variety. One man will succumb to an attack of scarlet fever in a few days, whilst another will be but little influenced by the poison. This was remarkably exemplified in the recent epidemic of influenza. No two cases were alike in either the premonitory symptoms or the manifestations of the progress of the disease.

All such facts have attracted the attention of the medical profession, and attempts to classify those which have come before them have been made by many members of the profession.

The ancient physicians soon found out that men varied in their physical conformation, and they made many keen observations on temperament.

It was Hippocrates who, four hundred years before the Christian era, founded the doctrine of temperaments, and it speaks volumes for his accurate observation that his views have been reproduced by many modern writers. The laity do not hesitate to describe certain individual peculiarities as indicating a proclivity towards certain diseases. They will instinctively pick out from a crowd a narrow-chested, slender-boned, bright-eyed, and clear-complexioned individual as a consumptive patient. And we have in our every-day vocabulary such words as thin-skinned or thick-skinned persons. A man with a skin the colour of beeswax is said to be bilious, whilst the red-haired, rosy-cheeked, full-lipped man is known as a roystering blade.

Unfortunately the word temperament has been used by writers, both medical and lay, with a want of precision which has brought the subject into great disrepute. Thus we hear of the artistic, ascetic, dreamy, religious, insane, peculiar, masculine, feminine, and many other temperaments. In reading the biographies of great men or women we find the same loose mode of expression. In a recent article in the *Times*, on the death of Froude, it was said that he had a peculiar temperament, whilst Oliver Wendell Holmes was said to be of "hopeful temperament." All this is misleading and unscientific.

An attempt has been made to classify human beings according to the colour of their eyes. But if you ask half a dozen persons to state the colour of a person's eye, you will find they will vary to such a degree that the classification is impracticable.

To Mr. Hutchinson we owe the ingenious suggestion that we might adopt a classification based upon anthropological data, and he selects three types which we might use, namely, the Celtic, Scandinavian, and Roman. But he goes on to say we should find a comparatively small number who could be definitely placed under any of these heads. So after due consideration I think it will be obvious that we must revert to the old classification, into nervous, bilious, sanguine, and lymphatic temperaments.

It is with the nervous alone that I would wish to deal. And the question very naturally arises, what are the distinctive traits of this temperament? These will naturally divide themselves into two groups, the physical and the psychological.

It is in my opinion absolutely impossible to do more than give a suggestion of the physical peculiarities of those who possess the nervous temperament. The following description of Shelley, by Leigh Hunt, will enable anyone to

picture one of the most nervous and impressionable men who ever breathed—a man who was blown hither and thither by every gust of passion. He is described as tall and slight, his eyes large and animated by a dash of wildness in them, his face small but well-shaped, particularly the mouth and chin, the turn of which was sensitive and graceful. His complexion was fair and delicate, with colour in the cheek. He had brown hair. We know enough of his life to recognize how his intellect was the servant of his temperament. A mighty difference there is when the temperament is the servant of the intellect. Burne-Jones has given us types of woman and man who possess the physical aspect of the impressionable temperament, which has three chief characteristics, a small chin, conspicuous angles to the jaws, and a broadening forehead.

But, as I have already stated, there is not a typical physical peculiarity which is possessed by this temperament. Common observation will prove to us in a few hours that it is impossible to give any absolute and positive rule which would enable us to classify those who belong to the group. It is only when we pass into the psychology of individuals that we are able to grasp any useful definite significance to the term "impressionable temperament." For many reasons it

would be better if we could adopt a more simple term, which would denote the peculiarity of such individuals. Their predominant characteristic is susceptibility, mental, physical, and moral. Their whole nervous system seems exposed to the influences of their environment. Cold and heat, fatigue, drugs, and alcohol influence them profoundly. Their special senses are offended by influences which an ordinary mortal lets pass unheeded. They will faint when they see blood; they will vomit at the sight of a badly-prepared dish, a loathsome object will make them shudder. Their hearing is so acute that they will detect the faintest vibration of a sound wave, and some noises will inflict positive pain. The familiar experiment of cutting a cork or scraping a piece of pencil on a slate will enable us to detect those whose hearing is impressionable, and whose auditory centre is preternaturally sensitive. The thrill which some experience when these two noises are made will transmit its influence to the teeth, and set them, in common phraseology, on edge. Just so is it with the other special senses, taste, touch, and smell. These will convey to the impressionable or nervous being sensations of pleasure and of pain which seem out of proportion. The same experience is met with if we glance at the impressions produced by mental processes. I

have watched an audience in the stalls of a theatre during the performance of that most perfect of all dramatic scenes, the trial in "The Merchant of Venice," and during the moment when Ellen Terry was making the words live I have seen some using their handkerchiefs to wipe away an unbidden tear, others have looked indifferent, and one dear old lady slept peacefully through the whole act.

But we need not pass into the field of art to discover evidence of this varied affectability, for in almost every home we may find the whole domestic atmosphere become agitated because of the influence of a trivial remark. Depend upon it, most of the unhappiness of the world is caused by the satisfaction and even delight which some cantankerous individuals take in passing into a sensitive spot the biting remark which they know will irritate and provoke reply. Be careful not to lay bare your whole soul to any human being. Keep just one or two recesses which no one but God and yourself can unlock. If you do not, you will find few magnanimous enough not to take advantage of their knowledge. And no one but a medical man ever knows the profound depression which follows the tapping of a nerve. Watch the worn look of those who have to live with and attend to the vampires who too often pose as invalids,

simply to attract attention, and to feed a morbid craving for pity. Over and over again are good mothers and wives and others laid prostrate by such everlasting sucking out of the vital energies. Nothing short of necessity will make some individuals recognize the eternal truth that no human beings were ever sent into this world simply to gratify their own weaknesses.

The term nervous has become synonymous with the idea that it is a condition of the organism which is completely under the control of the will, and there is a considerable amount of truth in this idea. No doubt a good deal of the hysteria, the depression, and, indeed, many little ailments will vanish under the influence of a strong emotion. Gordon, who suffered from what he called *The Doles*, advised taking in washing as a sovereign remedy. But outside all this we are obliged to recognize the truth that in reading the lives of all truly great men and women we can trace their varied moods, their excessive sensitiveness, their impressionability to mental, physical, and moral forces which are the symptoms of the nervous temperament. There never was a great author, poet, painter, or preacher who did not feel that throb of sympathy which translates itself into the immortal book, picture, poem, or sermon. It is considered bad form by many to show the feeling

of love or hatred; but draw the curtain from the lives of such great and good men as Dean Stanley, Havelock, Tennyson, and a thousand others, and we shall see that these never hesitated to condemn what they disliked. What a dignity and pathos there was in that picture in our Academy a few years back, which depicted with rare skill Samuel Johnson standing bareheaded in the market-place at Uttoxeter, in the very spot where he had at one time disobeyed his parent; and please remember this is the sturdy old moralist who would pour out his vituperation upon those who trod on his mental corns.

It is encouraging to thousands to remember these facts, for many highly gifted human beings have been laughed at and abused because they were sensitive to the vulgarity of those around them. It is only those who possess the temperament which we are endeavouring to portray who know what it is to feel the joy of music. To them alone is given that sensitive ear which drinks it all in. Their whole being becomes absorbed and lost, as it were, in the enjoyment. These are the gifted individuals whose quick wits and sensitive brains pick up so much knowledge with such consummate ease. These are the high-souled ones who know what it is to shudder at an ugly picture, an instrument out of tune, or a suffering mortal.

But, alas for them, there is shadow as well as sunshine, and although the joys of this world afford them inexpressible pleasure, it is so true that the sorrows depress them with equal severity.

This is the reason it is so interesting to read carefully the life of such a man as Robert Burns; perhaps his letters give us the clearest glimpse into his nature; they reveal to us so certainly the greatness as well as the littleness of the man. Take the two letters written within ten days of each other, one to Mr. John Tennant, dated December 22nd, 1788, in which he talks of whisky from one end of the letter to the other, and it requires no seer to imagine John Currie of Cane Mill, who was good for a 500*l.* bargain, and Robert Burns drinking the spirit which he praises so highly.

Then we have one of those delightful letters of his, written on New Year's day, 1789, in which he says:—

"We know nothing, or next to nothing, of the substance or structure of our souls, so cannot account for these seeming caprices in them, that one should be particularly pleased with this thing, or struck with that, which, on minds of a different cast, makes no extraordinary impression. I never hear the loud solitary whistle of the curlew in a summer morn, or the wild mixing cadence of a troop of grey plovers in an autumnal morning,

without feeling an elevation of soul, like the enthusiasm of devotion or poetry. Are we a piece of machinery, which, like the Æolian harp, passive, takes the impression of the passing accident, or do their workings argue something within us above the trodden clod? I own myself partial to such proofs of these awful and important realities—a God that made all things, man's immaterial and immortal nature, and a world of weal and woe beyond death and the grave."

His poems, taking them altogether, indicate rather a character whose boyish cheerfulness could surmount most obstacles; but when we carefully read through his letters we find the real man, and how truly great he was. He was capable of rising to the highest points of poetic inspiration, whilst at other times he would drink to excess with millers and others in a common public-house, and apparently enjoy the society of the lowest characters. But it was not Burns alone who did this. Byron held orgies at Newstead Abbey, which were as wild as any ever dreamed of by the most imaginative Bacchanalian. Turner indulged in the excesses of a drunken sailor. And I expect we all know of gifted individuals who pass from the highest intellectual or artistic work to a degraded state which will not bear talking about. It is the swing of the

pendulum. If a man or woman has high inspirations they can only carry these into action by enormous vital expenditure. This is succeeded by a corresponding exhaustion, and where the flesh is weak the spirit is infirm.

Then we must always remember that all great work is done at a white heat, and not turned out to order, and is often done against the wishes of the producer. The impulse is irresistible. Byron must write poetry; Mozart could not resist the tendency to compose. Such men have in them the fire which will blaze out. Don't let us accept the physical basis of genius, and say it is all industry. Fudge! Why, there are millions of us who might play the fiddle until the end of our lives without getting much further than the National Anthem, whilst others will take to music as naturally as a young swan will to the water.

It is curious that every writer of note whom I have ever read of, or talked to, has been unanimous in stating that production is not to be regularly expected if good intellectual work is asked for. Depend upon it, all the thoughts which will never die, all the pictures which we never tire of looking at, were not done at so much an hour. Fancy Shakespeare writing "Hamlet" to order, or Constable painting "The Valley Farm" on commission. A well-known and great musician

was once under a legal bond to produce an opera by a certain date. He struggled to force his ability, but he could not produce a single air. After breaking his contract he was locked up in a tower, and, being told that he must either throw himself or his opera out of the window in a certain time, he threw the opera out; and it represented artistic work done under pressure. It was found to be the most miserable stuff which he had ever created. Happily this does not apply to the rough work of the world, because so much which is essential to our every-day life is done almost automatically. From observation we are convinced that a number of works, and even works of art, are what the Bohemian calls "Pot-boilers." The daily Press consists, to a great extent, of matter which can lay no claim to originality of conception, or to a belief that it will survive the next issue in the memory of the readers. It is well for the producer that it is so, for no human being could stand, day after day, the strain and loss of force which is felt by the true artist when he is at work.

Watch an orator, and you will see how he begins calmly, but, as he warms to his subject, the eyes begin to flash, the cheeks increase in colour, animation seizes the whole frame, until every thought flies out into the arms and body, and we never see the man who can move an audience who has not

an enormous amount of dramatic action. Oliver Wendell Holmes says:—"The men of genius, I fancy, must have erectile heads like the cobra-di-capello. You remember what they tell of William Pinkey, the great pleader. In his eloquent paroxysms the veins of his neck would swell, and his face flush, and his eyes glitter, until he seemed on the very verge of apoplexy." The hydraulic arrangements for supplying the brain with blood are only second in importance to its organization. The bulbous-headed fellows who steam when they are at work are the men who draw big audiences, and give us marrowy books and pictures. The late Dr. Magee used to sweat like a harvest hand when he was in the pulpit.

But after this comes the reaction, and some men (Tom Sheridan was an instance) only rise to the height of their oratorical powers once in a lifetime. His defence of Warren Hastings was one of the highest displays which has ever been heard; but this one effect seems to have consumed his powers, and afterwards he seldom rose much above mediocrity.

As an instance of the expenditure of vital energy which takes place during intellectual work, we may bring forward the instance of De Quincy, who used to read and write with his feet in a pail of hot water; and few men, indeed, who have sat

down to downright hard thinking get up without a feeling of fatigue and chilliness, apparently out of all proportion to the amount of work accomplished.

It is so essential to bear this in mind, because so many of the finest brains the world has ever known have been shattered and ruined by inattention to the exhaustion which follows all mental work. Those who have attended literary men in their illnesses must have noticed, over and over again, this physical exhaustion, which is always associated with irritability, gloominess, and sometimes pitiless cruelty. No saying is more true than that aphorism of Seneca, "*All cruelty springs from weakness.*"

A remarkable illustration of this apparent paradox is well illustrated in the case of Nero. This bloodthirsty tyrant was fond of music, literature, the fine arts, and the drama. His organism responded to the emotion of the moment. We know as a young man on one occasion, he exclaimed, as they asked him to sign the sentence on a criminal, "*Would to Heaven that I had not learned to write!*"

We all know how his indulgences lowered his physical energies, and we have him apparently indifferent to the burning of Rome, and showing his selfish indifference by indulging in music

during the very time that the flames were licking up the treasures and beauties of that unique city. How can any historian ever hope to explain the conduct of such a monster as Nero if he does not recognize the fact that his temperament was of the impressionable kind? Our own Elizabeth's character at one time prompts her to actions which rise to the highest points of patriotism, whilst at another time she is deceitful, vindictive, and unjust. And how often are we startled when we hear of the conduct of someone whom we had looked up to with sincere respect, and how we must all shudder if we jump into the balance ourselves. How difficult it is to explain some of our antipathies and our affections, how much every man and woman is influenced by self-interest and fear.

It is of enormous importance to the doctor to be alert to the impressionability of those who have the nervous temperament, because symptoms assume so much more intensity in them. I have seen one man bang his head against the wall when suffering from toothache; whilst I have known another go calmly about his daily work. This varied aspect of humanity affords a never-ending page of interest to the medical man, it makes the profession and its members wide in their sympathies, generous in their criticism, and

tolerant of the moods of those with whom they come in contact.

. . . . . .

ALL those who are watching the human race as they are living in our large cities must be impressed with the rapid growth of those diseases which, for the sake of convenience, we call nervous, being due to faulty action of some part of the nervous system. Why is this so? The answer is a simple one. It lies in the fact that as civilization advances we must develop new brain centres—brain buds, if you like so to call them—and these newly-organized centres, being young, are also tender and sensitive, and easily lose their physiological balance. Exactly the same thing occurs in the vegetable kingdom. In the morning paper I read lately:—"During the last forty-eight hours the wind has been blowing a gale in South Lincolnshire, and the weather was exceptionally cold. The orchards have suffered seriously; considerable damage has been done to the fruit crop." What horticulturist or farmer has not seen the young blade of grass or wheat shrivelled up and made yellow by a night's frost? So it is the newly-developed centres which are not able to stand the stresses and strains of life which cause the nerve-specialists to wonder whether we are not paying too heavy a penalty for the intellectual

progress of modern days. Education, competition, and hurry, are all factors which are pushing us on with irresistible force, and it is not outside the province of the medical profession to hold up the signal of danger, and to say with all the force which is at their command: "*You are using the intellect of the present day too much.*" Do not believe that a nation will ever continue to hold the high position in the world, which this dear old England of ours now does, if we let all the energy of the young rush up into the brain. We have other organs quite as useful which claim care and attention; the whole field of art, literature, and science may be conquered at too high a price if we develop with this conquest insanity, hysteria, and melancholia. Moreover, if we have the brain in a highly sensitive condition, it will cry out for unnatural mental stimulants, and be sure these mental stimulants will be in the market to supply the demand. Are they not there now? Can we conscientiously say that our novels, our drama, or our art are clean, healthy, and natural products? Is it not rather the truth that we have a flood of books now which a few years ago would not have been read by a decent citizen? Is not the atmosphere of many of our theatres reeking with a morbid sentimentality which must leave a stain upon all those who sit in them and listen to

what are euphemistically called *moral problems?* Rather would it be truer to call them *immoral problems.*

There is another aspect of the question which calls for consideration. It is this. If we give the brain too strong mental food it will beget irritation which cries out for relief. And do we not find an enormous increase in the amount of such sedative drugs as sulphonal consumed almost daily by so many men and women of the present day? And if they do not use a drug, indulgence in alcohol is too often resorted to for the purpose of affording relief.

These are not the pages in which it is fitting to point out what is the purely medical aspect of the case, but it is permissible to state that all those who possess, in a pre-eminent degree, the nervous temperament must always remember that the sensitive nervous system can, and ought to be, blunted by an adequate diet, exercise in the open air, moderation in all things, the cultivation of cheerfulness and contentment, and, above all, control of the emotions.

Experience tells us that we miss the mark often by too much striving; we do that best which we do the most easily, and it is not wise to be everlastingly feeling our moral pulse. A man never enjoys the scenery which he is passing through if

he is thinking simply of his destination. "*Take short views and hope for the best,*" was the excellent philosophy of Sydney Smith.

No one knows the advantage of this cheerful rule of life more than the doctor, and it is often useful for him to remember the following lines, written by a man who has lifted us up more than almost anyone of this century, viz., "Oliver Wendell Holmes":—

'Tis a small matter, in your neighbour's case,
To charge your fee for showing him your face;
You skip upstairs, inquire, inspect, and touch,
Prescribe, take leave, and off to twenty such.
But change the time, the person, and the place,
And be yourself, "the interesting case";
You'll gain some knowledge which it's well to learn,
In future practice it may serve your turn.

We have, scattered through the pages of medical literature, the personal experience of two doctors who have passed through dangerous illnesses. One is Sir James Paget, who has written a minute account of an attack of blood poisoning, and all those who know anything of his works will feel what is meant when I say the pages are as absorbing as those of any novel. Happily Sir James is still with us, and not a little of his recovery was due to his calm courage and cheerful mind. But quite as recently as May, 1895, we had a most interesting and useful page of personal experience of illness from the pen of Dr. Preston King. He is particularly

strong in impressing upon those of my guild who have to pilot a patient over a critical illness not to tell the sick person the worst. So many individuals, when they are in good health, will say: "If I am ever ill, doctor, pray tell me the worst," but experience points to the fact that during the progress of any malignant malady the patient will seldom face the position and ask for the truth. They know it well enough, and, to quote Holmes again,—

"A physician is not, at least ought not to be, an executioner; and a sentence of death on his face is as bad as a warrant for execution signed by the governor. As a general rule no man has a right to tell another beyond a look that he is going to die. It may be necessary in some extreme cases, but, as a rule, it is the last extreme of impertinence that one human being can offer to another."

Holmes expresses himself with more frankness than many of us would do; but he is right in the main. The lesson which he would teach is never to quench or diminish the flickering flame of hope. There are some individuals who will pass into the next world as calmly as a man gets into a bath; but these do not belong to the nervous group. The quick, impressionable natures of the latter receive, and are influenced by, every force which

comes across their lives. "A little thing may harm a wounded man," and when such as these are sick unto death, let the doctor, nurse, and friends fight the tyrant with cheerfulness. Many a human life has been snatched from the grave by the hopeful determination of a doctor or of a nurse. We have all seen the smile of welcome come into the face of a patient when the doctor enters the room, and it surely is no part of the medical man to brush away this sunshine. The progress of all diseases is irregular; the termination of many is uncertain; and it is right to give our patients the benefit of the doubt. Sir William Gull used to say that sympathy was the most essential moral attribute for a physician to possess, and none are so conscious of its influence as those who have the nervous temperament.

All those who recognize in these remarks any analogy to their own organization need not be ashamed to belong to the assemblage. It is a temperament which we shall find sprinkled over any group of men or women with which we are brought into contact. It is the temperament which builds up our highest characters. Women doubtless possess it to a larger extent than men, and it is for this reason that they add so much to the lustre of every-day life. Its recognition will make us all a little more lenient to the moods and

caprices of those with whom we live. Every man and woman in this beautiful world must know how varied are their feelings from day to day, yes, from hour to hour. Don't let us call every display of passion bad temper, or every outburst of feeling hysterical.

For my own part I would rather spend my days with those whose natures are as changeable as the sky of an April day.

SLEEPLESSNESS.

THE attention of the public mind is often attracted to and fixed upon a subject owing to the suffering of some illustrious individual. Some time ago a good deal of interest centred around sleep, because Lord Rosebery had for some time been suffering from insomnia or sleeplessness. It occurred then to me that some good might ensue if I attempted to treat the subject from a common-sense point of view.

In the first place, I should venture to say that no living being ever sleeps in the true sense of the word, that is if by sleep we mean cessation of mental processes, because there is ample evidence which proves that the brain will, quite independently of our will or knowledge, perform most useful and good work when we are unconscious of its action. The manager of a Yorkshire bank could not find a duplicate key, giving access to all the safes and desks in the office, which ought to have been in a place accessible only to himself

and the assistant manager. The idea that the key had been stolen for a nefarious purpose was most distressful to the manager. A detective was brought from London, who, after investigation, very wisely said, "You may rest assured that you have put it away somewhere yourself, but you have been worrying yourself so much about it that you have forgotten where you have placed it. Go to bed with the assurance that it will be all right, get a good night's sleep, and in the morning you will most likely remember where you have put the key." This turned out exactly as was predicted. The place where he had put it occurred to him during his sleep, and it was found there the next morning.

If anyone will watch the face of a sleeping child, they will see the play of the emotions in the face, and it is astonishing how much variety there is in this play. The dogs sleeping on the hearth will prove the same fact when they whimper and whine, as if pursuing game. So it was not a mere poetical speculation which led that accurate observer of the habits of the lower animals, Sir Walter Scott, to say:—

> "The staghounds, weary with the chase,
> Lay stretched upon the rushy floor,
> And, urged in dreams, the forest race
> From Teviot Stone to Eskdale Moor."

Lucretius alludes to the dreams of the lower

animals, and in "De Rerum Natura," lib. iv., describes the difference between the dreams of dogs of the chase from those of the lap-dog.

Let us take an illustration from our experience. If a man sits down at night and endeavours to remember the thoughts which have occupied his brain during the day-time he will often find himself utterly unable to do so, although he must have had thousands. I grant that if some trouble or special subject has attracted his attention he may and he often will be able to recall much which he has thought. Just so is it with our dreams. We only remember those which have made a striking impression upon us; but that does not prove that our brains have been at rest at any moment of time.

At one period of my life I was in the midst of a practice which included in its work a good deal of night work, and the night bell was one of those sounds which would send a shudder through one's whole frame—for there is nothing more exhausting or irritating than broken sleep; but what was curious to notice was that I never remember the bell ringing unless it found me in the middle of a dream. Sometimes, if the dream were pleasant, I felt angry at its interruption by the unpleasant sound of the tinkling bell.

Then another fact must be considered: the

variability of sleepers. There are some individuals who would sleep through an earthquake, whilst there are others who are aroused at any slight sound or irritation, such as for example a strange light. I say a strange light because some persons from habit cannot sleep in a dark room. And these light sleepers are just those sensitive beings in whom every influence is felt acutely. They start at noises during the day, they feel the sting of sorrow, and they know what it is to enjoy.

Physiologists have struggled to find out exactly what is the condition of the brain during sleep, and have struggled in vain; but it may be accepted, that during sleep there is less blood in the brain than during the hours when we are awake. This is exactly what we should expect, because thinking is a function just as much as digestion. In both cases increased activity must mean an increased blood supply. If we want an engine to do work we must pile on the coals, but we must not choke the furnace. This leads us on to consider the causes of sleeplessness, and by an easy movement of our thought we can say anything which causes too great an activity of the brain will "choke it up," and prevent our sleeping. Worry, excitement, speculation, anxiety, losses, and even gains, will cause so much blood to go to the brain that it will not stop ticking.

Take an illustration: a physician, Dr. Addison, of Guy's Hospital, had been visiting a poor patient at ten o'clock at night. He went home and straight to bed. Whilst there it occurred to him that he had forgotten to leave with the nurse some instructions, and this worried him so much that he got up, tramped through the streets in the early morning, gave his instructions, and went home to bed and slept. Excitement acts in precisely the same way. A man or woman has been out and engaged in some animated discussion, the brain has become too active, and so too full of blood, and as an inevitable result sleeplessness often results.

Speculators experience the same sequel, and what is curious is that a man who loses 10,000*l.* will be kept awake perhaps a week, whilst it is equally true that the same man if he makes 10,000*l.* would also be restless. But his restlessness would be less prolonged and less severe. In point of fact there is no emotion which will keep a man awake so certainly as disappointment in money matters. As the farmers so graphically say, "The bad times have got to bed to me."

The explanation of the cases of sleeplessness lies in the physiological fact that the brain is too full of blood.

Irregularity is a fruitful cause of sleeplessness. If a man accustoms himself to go to bed at ten

o'clock every night, and then tries to go to sleep at any other time he will find sleep is not so easily found.

Many articles of diet will in some individuals cause sleeplessness, such as tea and coffee, especially tea. Nothing banishes sleep more surely than pain. But no amount of pain will altogether do away with sleep. Fear will keep persons awake sometimes for a long period; but there is probably no degree of terror which will prevent repose when exhaustion ensues.

The tortures of the rack were said not to prevent sleep, and those condemned to death will often sleep soundly on the night before the execution.

Excessive cold will send a man into a sleep from which he sometimes never awakes, but when it is not excessive it will dispel sleep. Quite a number of people will tell us that coldness of the feet is a common cause of wakefulness. Indigestion is often a cause of sleeplessness and nightmare. In fact anything which irritates the stomach fidgets the brain, because there is a close union between these organs, through the medium of the nerves.

But we must remember that hunger will often keep a man awake; the reason is because during digestion a certain quantity of blood rushes to the stomach to carry on the digestive processes, and

thus the brain being deprived of a certain amount drops into sleep. We all experience this in the delightful sensation of drowsiness which follows a well-earned and satisfactory meal. Excessive physical fatigue in those who are accustomed to an intellectual life will often cause sleeplessness; especially is this the case when the brain has not done any work during the day. To know what rest means, either of body or mind, we must do a certain amount of work with our physical organs as well as our mental. There are probably some individuals, such as ploughmen, who will drop to sleep the instant their heads press the pillow. Their brains have never been developed, and so do not require the functional activity which will make them rest. Shakespeare alludes to the jaded sailor boy who drops asleep—

> "Upon the high and giddy mast,
> In cradle of the rude imperious surge."

The sailor boy might possibly sleep at the mast-head, but no thoughtful person either could or would do so.

The effects of prolonged sleeplessness will undermine the strongest constitutions. The sufferer becomes irritable, gloomy, and chilly. The memory is weakened, and the thinking powers diminished. The most terrible punishment which Chinese cruelty has invented is prolonged want of

rest. Some of our greatest thinkers have suffered from privation of sleep. Newton's mind was wrecked by it, as was Southey's; in fact, the more gifted and cultivated a mind is, the greater is the liability to insomnia.

Some men of action have been able to sleep at will. The Duke of Wellington was an example, as also was Napoleon. Amongst doctors we find a remarkable capacity for sleep. Their work embraces both mental and physical fatigue, and how this induces sleep we have endeavoured to show, and how it tends to prolong life the roll of the College of Physicians testifies.

We must also remember that the enormous amount of mental strain which the inhabitants of large cities are subjected to must produce sleeplessness. The misfortune is that to meet this want of sleep we have a cluster of remedies to induce sleep which are to be found in the possession of, and are habitually used by, far too many of the public. Such habits should be checked at once, because the use of any drug for the purpose of producing sleep is a pernicious and a gradually overmastering habit. Thousands of men and women are the slaves of chloral, sulphonal, opium, or bromides. These are but crutches, and their continual use, or use at all, unless under a doctor's supervision, is a dangerous and often deadly

practice. The pity is that they are to be so easily obtained.

A few simple rules for producing sleep will often be found efficacious. If we remember that sleeplessness is produced by too much blood being in the head, we shall at once see the advantage of any process by means of which it can be drawn away. We should place first on our list of remedies sufficient physical exercise; many a sleepless night would be avoided if more people would call into play their arms and legs. The Roman remedy for sleeplessness was to swim three times across the Tiber. It is a good plan for all bad sleepers to sponge their bodies before going to bed, after which they must give themselves a good towelling, and go through some simple physical exercise, such as dumb-bells. All these act simply by partially emptying the brain of blood. But by far the most efficacious method is to take a number of deep inspirations, which causes the blood to rush into the thorax and bring about what we desire. Monotonous sounds will, in some individuals, lull them off to sleep, such a sound as the surging of the sea, or a murmuring wind. But if the noise is intermittent or irregular, such as the dripping of water, wakefulness is produced.

One practical lesson is not to let the mind be harassed by any close intellectual work within a

short time of going to bed; far better indulge in delightful fireside chats with those whose affection we can trust as a law of nature. Let us, if we are able, relieve our loaded brains by that sweet companionship which sympathizes with our sorrows and shares our joys. Such a simple plan will produce a calm restful mental state which will produce sleep with far more certainty than "all the drowsy syrups of the world." It is those who live alone, and lead selfish, ungovernable lives, who are so frequently bad sleepers; for no lulling murmurs, no soft warm bed, will avail a restless man who is under the influence of strong mental emotion, or has not a happy home life.

"*Contrast is a law of life.*" We could not appreciate joy were it not for sorrow, we could not know what rest was if we did not work. Cloud follows sunshine, summer winter, autumn spring, and sleep follows wakefulness, and how striking is the contrast! At one moment of time your special senses are alert, your will power is dominant, you use your judgment, and your reason. Then the eyelids fall, and shut out the outer world; our ears hear not; our touch gives us no warnings; our sense of taste does not minister to our pleasure; the sweetest perfume is unheeded; we

forget everything; we think of nothing; we hope for nothing.

The wonderful thing about sleep is that our essential vital functions carry on their ceaseless work. Night and day the heart must beat and the lungs must breathe. But even these necessary servants have a period of rest. It may not be generally known that the heart has a brief repose, after the contraction and dilatation of its cavities. The duration of this rest, or pause as it is technically called, is believed to be about one-fifth of the cardiac cycle. The breathing, of course, is carried on continuously; and it must always be borne in mind that during sleep the heart beats less frequently and we breathe less quickly, the result of which is that the body is more easily affected by cold during sleep than when we are awake. How frequently do we feel quite cold about 2 a.m.? That is just the hour when the earth is the coldest; it is the hour when all nature seems paralyzed; it is the hour when we are most timid. It is the time the doctor fears with his patients who are extremely ill, because at that hour the falling thermometer robs the sinking human being of vital energy, and this is the time the nurse is told to give brandy, and to put coals on the fire. Napoleon used to say, "Two-o'clock-in-the-morning courage is very scarce."

We are frequently asked by people how many hours' sleep are necessary for the maintenance of health. It is not possible to answer the question with precision, but it is certain that more sleep is required during baby life and old age than between those periods. Then there is a different restorative power in sleep. Healthy profound sleep has more recuperative power than the uneasy rest which follows irregularity, worry, or over-eating. We frequently hear people say, "I get up just as tired as when I went to bed." If we want to get the greatest good out of sleep we must take it regularly, the same hours summer and winter, and roughly speaking every adult requires eight hours' good sleep; that is, if he has done sixteen hours of mental and physical work, interspersed with recreation and variety. In London and other large cities men break this rule constantly. Bulwer Lytton tells us, after a long day of professional business, followed by a late evening of some amusement, he would return in the small hours of the night to his books, and sit undisturbed till sunrise, studying them; nor did he then seem to suffer from this habit of late hours; his nightly vigils caused no sign of fatigue the next day. But he rarely rose before noon, and often much later. This instance is quoted to prove that a man may be a late sitter, and still be regular in his hours of

sleep. Jeremy Taylor only slept three hours each night. Frederick the Great and John Hunter were satisfied with from four to five hours. Wesley lays down the time for sleep at six hours, Lord Coke at seven.

Physicians are unanimous in preferring early to late work, but probably few who are in a busy profession obey the rule of working before breakfast. It always appears to me to be the most difficult time in which one can obtain that mental freedom essential to all good intellectual work.

Let anyone see when their brains *tick* the best, and after doing so it will probably be discovered that when all is quiet, when there is a period before you which will not be disturbed by the arrival of the post or any other matter to break into your privacy, then does the intellect act most rapidly and accurately. Who is there who has not written far into the night, until the flickering lamp has reminded him of the passing time? And who has not written until the vital force has spent itself on the cerebral hemisphere, and the feet have become stone cold? It is just this rapidity of brain action which the physician dreads. But it is probably true that the thoughts which the world cannot let die have been mostly born when the stars were shining.

The immediate cause of sleep, that is the mechanism by which it is produced, was until recently quite misunderstood. It was believed that during sleep the blood left the inactive parts of our frames and collected in the brain. It was said apoplexy was caused by an unusual quantity of blood being present in the brain, or from the rupture of a vessel, and in both instances there has been increased blood-pressure. It was also argued that full-blooded people were the heaviest sleepers, and that the recumbent position which promotes the flow of blood to the brain induces sleep. Modern physiology said, No, this cannot be true, because when any organ or function is active blood is sent to that part—witness the stomach during digestion—so that during sleep the brain must contain less instead of more blood. This theory was ratified by experiments upon the lower animals, portions of the skull were removed from living dogs, and it was found that during sleep the brain got smaller.

These conclusions were verified on the human subject, for in the infant, as is well known, for some time after birth there exists at the top of the skull a small space not grown over by the bone, but covered only by the proper membrane of the brain and the skin. Now, when the child is excited with either pleasure or pain, this part may

be seen to bulge out, and when asleep it drops below the level of wakefulness. All animals, and probably all plants, sleep. We are familiar with the way in which plants close their flowers as the night comes on, and some, as the trefoil, sleep with their leaflets folded together.

One of the most marvellous adaptations to external conditions is the state of hybernation. The hedgehog, dormouse, and bat are well-known animals which, during the winter months, lie in a condition of profound sleep; and it is in this state that we are able to confirm the remarkable lowering of the circulation of the blood and the respiratory process during sleep. Both are with difficulty detected. The hedgehog wakes up every three or four days, and obtains a few worms or snails if the ground is not too hard. The dormouse may awake every day for a short time, when it munches a few grains if it can find them, then drops back to sleep. But the bat, which feeds upon insects, has no means of support during the winter; therefore it is arranged that during these months this curious animal shall pass its time in a state of lethargy. The temperature of these animals falls very nearly to that of the atmosphere, which is a further confirmation how low the vital force is at this time.

It has often passed across my thoughts that a

good many individuals might be called hybernators. I say nothing of the aged; their blood is chilling with age; their range of activity is getting into a smaller circumference day by day; their special senses are getting blunted; and so their sense of pleasure and of pain is growing less and less. They drift by a law of nature into the fire corner and the cushioned chair. They want warmth, and kindness, and sleep. Let all of us be charitable to them. Don't sneer at the anecdotes of the aged, although we have heard them a hundred times over, but rather let us speak with sympathy, as does Dogberry of Verges, who, Shakespeare tells us, was as honest as the "Skin between his brows." The old man would talk, and the impetuous Leonata is annoyed by the old man's gabble, when Dogberry, with that touch of truth, humour, and pathos, which raises Shakespeare so immeasurably higher than all our poets, says "A good old man, sir; he will be talking; as they say, when the age is in, the wit is out."

It is not such as those that we would group as hybernators, but rather those young and middle-aged people who will sit by the fire hybernating day after day, just getting through the hours without aim and without object, and awaking each morning with a feeling of despair at the approaching

day. No wonder that Nature steps in and says to such people, "You are breaking the primary law of your being. You have clothing to keep you warm. Go out into the world, and, for Heaven's sake, make some human being happier for your existence. Learn the lesson which has been taught to us in Sacred Writings, that the man who does not work shall starve." And so he does, for such individuals may drag on through a few years with the vitality of a hedgehog, and the enjoyment of a dormouse, but they cannot live to be aged, they cannot enjoy life; they constitute the class who fill the doctors' pockets, who are continually whining about their aches and their pains. They won't see that the greater part of their suffering is the result of this sloth, this inactivity. These are the people who will doze for hours during the day, and then wonder why they do not sleep through the night!

IS LONDON A HEALTHY CITY?

IT is curious to notice how many health resorts claim possession of the lowest death-rate and the smallest rainfall. One can readily understand why the authorities of sea-coast towns publish statements, from time to time, giving a good health character to their locality; but we fail altogether to perceive why London should be described, with the most monotonous repetition, as "the healthiest city in the world."

Let us for a moment consider what this means.

By the health of an individual we mean the easy, unconscious, harmonious, and automatic operation of the different organs and functions of the body; and these conditions cannot be fulfilled except in a sound hygienic environment, and a free and abundant supply of the four essential agents of life, viz., food, air, water, and fire. Where any one of these is wanting, death is the result.

It will be readily admitted that all food is more nutritious and more easily digested when it is fresh.

This particularly applies to three articles of diet which cannot possibly be produced in London,—fish, eggs, and vegetables. For these we are dependent upon the productions of our own country districts, and those which are introduced from abroad either directly, or frozen, or preserved in cans; every one of which processes lessens the nutritive value of the food.

With regard to the air we breathe, everybody nowadays knows enough of chemistry to understand that air is a mixture of gases, only two of which need to be named here—oxygen and nitrogen.

Oxygen is the vital air, and essential to the support of life, while nitrogen dilutes the former gas, and so diminishes the rapidity with which our human fabric is consumed. The proportions of an ideal atmosphere should be one-fifth part of oxygen to four-fifths of the whole bulk.

There are also other facts to be borne in mind, when we think about the air in which we live. In the first place it is always moist; and, in the second, it always contains carbonic acid, which gas, though never absent from the atmosphere, exists only in small quantities, i.e. about four parts in the thousand. As a matter of fact carbonic acid is none other than the fearful choke-damp which is present at the bottom of wells, mines, or

caverns, such as the Grotto del Cane (Cave of the dog), near Naples, in which a dog dies in a few minutes, whilst a man or a horse, remaining there for the same time, will sustain no injury, because carbonic acid, being heavier than the atmospheric air, sinks to the bottom, and the quantity present does not rise high enough to affect, to any great extent, the breathing apparatus of the horse or his master, man.

This gas is also the result of animal life. In plainer words, it is the poison which living creatures throw off as long as they live. It is the product of combustion, so that, literally, all living or burning things are our relentless foes; we are each one of us taking from the air what our fellow-creatures need, while we throw into it what is poisonous to them and to ourselves.

How terrible is this struggle for life in the dense vastness of a city like London; and how often we must breathe, over and over again, the same air which we have each so industriously and yet so unconsciously poisoned. This vitiated air cannot energize the body with as great a force as pure air; while, should the carbonic acid reach as high as eight parts in ten thousand, its pernicious effects are at once appreciable, and we have the stunned, tired feeling which is experienced on leaving a crowded church or theatre, where busy

lungs have been competing with the gas for the oxygen of the air, and all the time throwing off carbonic acid.

There is one other aspect of this atmospheric balance which we are apt to lose sight of in London, and that is the lesson we learn from the comparative absence of plant-life. The subtle way in which the vegetable kingdom welcomes and absorbs the very carbonic acid that the animal kingdom so unanimously rejects, moulds the carbon into its own frame, and sets free, for our consumption, the precious and vitalizing oxygen, is a process of exceeding beauty, which has always a charm for thoughtful minds, and, moreover, has led many students of sanitary science to suggest that the bare places of London should be planted with trees and shrubs. This has certainly been done to a limited extent during the last few years. The reasoning seemed logical enough, but Nature is not to be cheated, and experience has taught us that but few trees will thrive in London, and that it would probably be found impossible to grow a briar-rose, a carrot, or an eatable potato within a two mile radius of St. Paul's Cathedral. Such was not always the case, for in 1768 we read of Sydenham sitting at his window in Pall Mall smoking and drinking a tankard of ale, when a thief snatched away the tankard through the open window, and,

running off, hid himself in the bushes of Bond Street.

It will be asked, not unreasonably, why vegetable life should refuse to flourish in an atmosphere impregnated with carbonic acid ? and the answer is not far to seek. It is simply because the bartering of oxygen for carbonic acid cannot be carried on except in accordance with the common customs of all commerce, through the intervention of a Middle-Man. That Middle-Man is the sun, and in London, or any other large city, the veil of smoke, which ever hangs 'twixt earth and heaven, shuts out his light. Without Light there is no Life.

Water is the next essential on our list, and one cannot exaggerate the necessity of a plentiful supply of pure water for the well-being of a community. Men have been known to endure absolute deprivation of food for some weeks, but three days of an entire abstention from liquid is probably the limit of endurance ; for it is the most imperious and irresistible of our appetites. Mr. Astley used thirst to tame refractory horses, awarding a modicum of water as a prize for every act of obedience. Shipwrecked sailors have told us of the intensity of suffering induced by the absence of fresh water, but of all the direful stories of the effect of thirst the most sad is that of the im-

prisonment of one hundred and forty-six Englishmen in the Black Hole of Calcutta. Crammed into a cube of eighteen feet, on a sultry night in Bengal, the agony of thirst became so insupportable that the victims attempted with insulting gibes to provoke the guard to fire upon them, and so allow kind death to assuage their pangs. "Water, water," was their cry, and such was the intenseness of the craving for drink, that Mr. Holwell, one of the survivors, tells us he kept his lips moist by sucking the sweat from his shirt-sleeves. The sequel is well known, for in the morning, when deliverance came, but twenty-three out of the hundred and forty-six remained alive. Although we are compelled to conclude that the mortality may be in most cases ascribed to the vitiated atmosphere rather than to the thirst, we nevertheless find most of the frightful phenomena which occur in conjunction with the total absence of liquid exemplified in this narrative.

What we are anxious to show is the necessity for a copious and continuous supply of fresh water; and, although it cannot be denied that some of the water companies of London perform their duties in a most able and efficient manner, we must not lose sight of the fact that as the water has to be brought from a distance, and is stored in pipes and cisterns, it is only natural that

very much of its sweet freshness should be lost in the process.

We have no cause to murmur on the score of heat, for London is a well-warmed city, inasmuch as we can depend upon artificial aid. What we lack is the heat which should come direct from the sun, and how great a loss this is no man can tell. All other heat is a degradation of solar energy, no matter whether it be the result of combustion or of friction.

We have alluded to the pernicious effect of a London atmosphere upon the vegetable kingdom. Let us glance also at the effect upon the lower animals of the London environment.

There are four creatures which flourish in London: the rat, the cat, and the house pests, Pulex irritans and Lomex Lectularius; but when we pass to the higher grades, the horse, the dog, and the cow, we observe that they degenerate and die with a mortality out of all proportion to what occurs in the country. Consumption is especially fatal to them.

Yet, with all these facts before us, the strenuous drumming of the tambour continually deafens our ears, that London is "The Healthiest City in the World."

Science shakes her head, and says, "Surely this cannot be so, for all life is governed by the

same law. What will kill a cow will kill a man, and those retarding influences which check the growth of a cabbage will equally arrest the development of a child."

On what ground, then, do we thus continue to content ourselves with a formula so palpably fallacious?

The Registrar-General's Returns certainly support the theory that we who live in London may rest secure and undisturbed; for the figures which he gives us for 1886 are 19·8 mortality per thousand; for 1887, 19·0; for 1888, 18·5; and for 1889, 17·4; whilst for the same years we have, as the following table will show, a decreased death-rate in the town districts:—

Year.	Mortality per Thousand.
1886	20·0
1887	19·2
1888	18·4

Where, then, lies the fallacy?

There are two fallacies. The first is in regard to the deductions to be drawn from the colossal size of London. Here we have 120 square miles of houses, containing a larger number of people than the whole population of Scotland or Ireland, and embracing areas as dissimilar as Bethnal Green and Belgravia, Mile End and Mayfair. Now the man who lumps up a cluster of these

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metropolitan districts and strikes an average death-rate, cannot get a clear or accurate conception of the ratio of mortality as affecting the urban population. The city of London, for example, which is comparatively empty on Sundays and after sunset, will show a mortality of 16·65 only; whilst Mile End, which is densely crowded, gives a death-rate of 18·58.

There is another consideration which must not be lost sight of in estimating a death-rate, and that is the average age of the population. Think for a moment of the railways, which pour into London, every day in the week, the cream of the rural populations, men and women, youths and maidens, born and bred and brought up amongst the green fields and the flowers and the new-mown hay, and fed upon fresh butter and milk and simple country food. These multitudes, sucked into the living maelstrom of London, hope at some future day to have gained enough money to allow them to fly back to their old homes.

They come to London to live, they intend to go away to die. They win their death in the unwholesome environment of the metropolis, and then they swell the death-rate of the country districts.

Some statistics have been given in the *Medical Magazine* by Dr. Vivian Poore, which clearly prove this point. From these statistics it appears

that there was in the Strand Registration district during the years 1871-1878, a *deficit* of 3812 children under 15 years of age, and of 453 adults over 65; while there was a *surplus* of 4233 persons between 15 and 65. This distribution ought, by rights, to have diminished the death-rate, but such was not the case; for we gather, further, that the number of deaths occurring in this area was more than double what it was in Dorsetshire.

That is what one would expect. Any one of us whose destiny it is to live in London, will be compelled to conclude, both from reflection and from personal experience, that we are living in atmospheric and other environments which militate against, and even check, the physical enjoyment of life, and produce a tension of the whole nervous system as baneful as it is unnatural. Cannot this be observed any day in Cheapside, Fleet Street, or the Strand, upon the faces of business men and women? Does not their eager, anxious, strained, and inwardly-preoccupied look tell its own tale of hurry and worry and toil in a blighted air? And will not a few hours spent in the out-patients' ward of a London hospital prove to the most sceptical statistician that, albeit the "healthiest city in the world," London, nevertheless, does breed her legions of pale-faced, big-headed, bent-limbed children, who look little able to bear the

brunt of the battle of life; and that the want of pure air and radiant sunlight develops pallor-smitten, anæmic, and neurotic men and women who, on account of their low-pitched vitality, feel every stress of weather and every pinch of poverty with an intensity the most pitiable?

Semi-starvation, prolonged through dreary years, is bad enough, but it is not always there that the mischief lies, for better and more to be desired is the plainest food under a hedge-row, than fourteen courses with the choicest wines at the Lord Mayor's banquet.

WHY MEN DRINK ALCOHOL.

PAUL DOMBEY sat with his father one day, and suddenly he broke the silence by the startling question,—

"Papa, what is money?"

"What is money, Paul?" he answered. "Money."

But Paul was not to be satisfied so easily, and he repeated the question. The elder Dombey replied, "It's gold and silver and coppers—guineas, shillings, halfpence—you know what they are?"

"Oh yes, I know what they are," said Paul; "I don't mean that, papa, I mean what's money after all? I mean what can it do?"

The reader will remember how the conversation is carried on: how the elder Dombey said, "Money, Paul, can do anything," and how Paul retaliated by saying, "Money must be cruel, then, because it did not save my mother."

If Paul had been older he might have cast his

eyes around, and seeing the variable uses of alcohol, we might imagine him saying, "What is alcohol, papa? What is this which men and women fly to as a salve for every sorrow; how is it that the hungry man and the glutton, the rich and the poor, the sad and the glad, all take this alcohol?" and he might have noticed how strange a thing it was that the return or the departure of a friend, the birth or the death of a relative, the buying or the selling of goods, all these were bound together by the thread of intoxicating drinks. Let us see whether we can form a clear conception of what this alcohol is.

We must go far back, in point of fact, to the very cradle of the race, before we find an account of the first use of intoxicating drinks. The very name is derived from Arabic, and doubtless it was discovered by the old alchemists whose lives were spent in the laboratory searching for the Philosopher's stone, which was to turn everything into gold, or trying to discover the elixir of life, which was to perpetuate human existence. It did not require very much or very profound knowledge of chemistry, to enable these searchers to discover, if they put any liquid containing sugar into a warm place, or allowed it to stand for a time exposed to the air, that in a short time a wonderful change occurred, that fermentation took place, and the

innocent sugary juice was split up into different compounds, amongst which was the most potential, the most seductive, and the most injurious liquid alcohol, which has played such an important part in the history of mankind.

Alcohol, in its pure state, is white, is lighter than water, and it is this agent which gives to all alcoholic compounds the power of making people drunk. It is mixed in spirits with various flavouring oils, and in wines with the taste of the grape, whilst the malt liquors are, or rather ought to be, made bitter with hops.

It is interesting to notice how alcohol was at first called poison. There is an old Persian fable which tells us that Jem-Sheed was the first inventor of wine. He was so fond of grapes that he wished to preserve some. They were placed for this purpose in a large earthenware jar, and lodged in a vault for future consumption. When the vessel was opened the grapes had fermented, and their juice in this condition tasted so strange that the king believed it was poison. He had some vessels filled with it, and "poison" written upon each. It so happened that one of the ladies of the court had a headache, and the pain distracted her so much that she desired to commit suicide. Observing the vessel with poison written on it she swallowed some. The wine, for such it had

become, overpowered the lady, who fell into a sound sleep, and awoke cured.

The news spread, and Jem-Sheed and all his court drank of the new nectar, and liked it so much that it is still consumed extensively in that country.

It is best to clear the mind from the belief that the intoxicating liquors owe all their injurious effects to the alcohol which they contain. Such is not the case. Many adulterations creep into the drinks before they pass down the throat of the British public.

It is not our intention to enter into the precise physiological action of alcohol upon the human race, rather would we face this simple question: "*Why do people get drunk?*" and by an independent line of thought try to throw some light upon an enigma which has puzzled, and is still puzzling the moralist, the statesman, and the scientist. We have before us in these few words a profoundly interesting human question,—for the question is an essentially human one,—as the lower animals are not inebriates and do not care for alcoholic liquors. We malign them, in fact, when we say a man is *beastly drunk*. The French people say, "as drunk as a cow," a still more insulting simile (to the cow). Beau Nash described eight kinds of drunkenness, each earning its adjective from a

supposed similarity to some beast, a fanciful sketch from a master in humour. Yet it is scarcely necessary to search deeply in order to understand this expression, which likens a man to an animal lower in the scale than himself, a degradation he brings about by his own folly, his own cupidity, and his own error.

I have, during the past few years, taken many opportunities for asking people of all classes why they drink intoxicating liquors, and what good it does them? The answers which I have received are too numerous to relate, but their general purport has been to convince me that people are under the impression that all alcoholic drinks stimulate the body, or, as they put it, give them strength; and it is terrible to notice the extent to which this idea is carried. Look where you will you will find the glass of wine or spirits or beer is taken to keep people up. Morning, noon and night is this perpetual nipping going on, until "What will you have?" has become the motto of the English people.

I am anxious to be scrupulously just in discussing this question; but we may be perfectly certain that the men or women who take their glass of wine at half-past eleven in the morning are doing their stomachs an injustice.

Another cause of the drinking which we see

going on around us is owing to the fact that our so-called comic papers have been in the habit of depicting the drunkard in an aspect which excites our amusement rather than our condemnation. How few of us really feel angry with Falstaff when he says, "If I had a thousand sons the first humane principle I would teach them should be to forswear thin potations and take themselves to sack,"—we only see the jovial side of the man.

The ancients were terrible sinners in this respect, and it was the boast of many that they could indulge in deep potations with impunity. No one now courts the fame of Darius, who ordered to be inscribed on his tomb that he "could drink much wine and bear it nobly." Horace has done more than justice to wine, and even the venerable Homer says, "The weary find new strength in generous wine." Our own poets have sung with no uncertain voice their praises of wine. Moore seems to positively revel in his wild words when he sings,—

> I pray thee, by the gods above,
> Give me the nightly bowl I love,
> And let me sing in wild delight
> "*I will*—I will be mad to-night."

There is a fundamental error underlying all these quotations. For alcohol is a sedative, and a sedative only. Doctors ought to use it to lull pain, to beget confidence, and to produce sleep. A

patient comes to us with a neuralgia ; we give him wine, not to stimulate, which would be to intensify his pain, but in order to quiet his feeling, and to make him less susceptible of that pain. Let us take another instance, which supports the view that alcohol is a sedative, and this time we will pluck our lesson from the impressionable Irish people. A death takes place ; one whom this warm-hearted Celtic race love is snatched away, and what follows but a wild alcoholic wake, in which the whisky flows freely ; yet can we think the object in taking that intoxicant is to stimulate their grief? No ; the purpose is to throw a veil over their sorrow and their sadness.

We might multiply our examples manifoldly. See how a drunken man or woman will walk on unconscious of the lacerated scalp or the bruise sustained in a public-house brawl. Notice how the man who has lost a thousand pounds will try to smother in the cup his sense of the loss sustained. I am convinced that this view is the only one which satisfactorily explains the universal use of alcohol in this country, and no good will ever follow the footsteps of any movement which does not embrace and act on this truth. If you go to the working-classes and say they will not feel more comfortable after a glass of ale, they will not believe you. Yet we must tell the public they are

wrong when they believe alcohol is a food; that it is impossible for them to do a greater amount of physical work by taking intoxicating liquors, and that they will stultify their brains if they pour into their stomachs wine, beer, or spirits. Those who lead active, exhausting, and anxious lives, feel compelled in modern life to call upon their organisms for more vital energy than they are justified in expending. The consequence is that they are often jaded and irritable, and a glass of wine calms this feeling—it does not cure it. I deny absolutely that we ever turn out more mental or physical product when we take alcohol. The best work in the world is not done, and it never will be done, under the influence of alcohol. Experiments have been made by Dr. Parker and others, but they have been made under circumstances which make the deductions untenable and impractical. A man is a complex and variable human being, and two ounces of spirits served out to a raw recruit, or the exposure of the noisy bluebottle to alcoholic vapour, until he is, as *Punch* put it, "a flummuxed fly," will not suffice as data to convince reasoning human beings that fermented liquors is either a food or a poison. We want more experiments, we want still more personal experience and unbiassed facts.

Let us take another class of inebriates, whom we may call "convivial drinkers," and a numerous

group it is! We have the wines of college days, the city dinner, and the humble beanfeast. All these embrace the consumption of a considerable quantity of fermented liquor; all are accompanied by the passing round of the bottle. In all these conditions we have the same coarse custom, the same disregard of temperance. There is another group of drinkers who take alcohol "from business necessity." Many a man has dropped into drinking habits because his calling has compelled him to drink with his customers, and again and again have I been assured they would not be able to transact much business if they did not bind their bargains with a drink. And how absurdly does the custom and habit of life tend in this direction! We meet an old friend and we drink! We say good-bye to an old friend, and we drink! At a marriage, a birth, or even a death, the inevitable bottle is introduced. The Briton's panacea for all troubles and trials, joys and sorrows, is alcohol. In fact the old reasons for drinking have not been much changed. The old rhyme has it,—

> Good wine, a friend, or being dry,
> Or lest we should be by-and-by,
> Or any other reason why.

I can easily conceive the advisability of passing round the subscription list at a charitable dinner

after the free circulation of the wine, but I cannot conceive any theory which would explain the customs which we have contracted of drinking intoxicating liquors on occasions so varied and so antagonistic.

I have reserved until the last on my list the class of drunkards which calls for the most attention and the most consideration, because as regards these it is difficult to find out why they drink too much. Morbid anatomy will enable the pathologist with his scalpel and his forceps to lay bare and to know the body of the drunkard. How many times have I written down in the dead-house: "Liver hard, kidneys contracted, lungs, heart, brain, all damaged by alcohol." As our professor of this special branch used to say: "The cause of all these changes, gentlemen, is spirit drinking." But the most careful dissection, the most powerful microscopic examination, will not demonstrate any difference between the tissues of a drinker before these structures are damaged by drink and the structures of a well-balanced individual who does not drink. So we must look deeper, we must ask another science to help us before we can give any cause for the drinking of the sot. The man or woman (it often is a woman) who drinks, regardless of home, friends, position, loss of money, or moral degradation, drinks any-

thing, drinks himself or herself through happiness to certain misery, breaks down the affections of the heart, and goes on drinking in spite of persuasion, influence or medicines as recklessly as a schoolboy breaks through cobwebs on an autumn morning. Terrible, indeed, is the degradation of these people. Painful is it to witness the gradual blinding of all sense of morality or of shame, for alcohol destroys humanity terribly. How these people will lie, how they will deceive to gain their drink! I have known a gentlewoman of good traditions steal the silver spoons from her own daughter's table for the purpose of pawning to buy gin. A medical man, as good, intelligent, and promising a student as any I ever remember, developed into a mad drinker; and on one occasion he walked into my consulting-room, with a coat evidently not made for him, unkempt—with the white face, the blue lips, the tremulous hands, the unshaven cheeks, and the watery eye of the sot, and with a husky voice asked me to lend him half-a-crown. *Lend* him, indeed! One knows all about broken promises. We see these specimens daily; we pity and we despise them, but we seldom save them.

I might add to these instances many more, for a doctor frequently comes into contact with them. I cannot, however, leave this part of the subject

without pointing out how many of those whose names live and burn in literature and art, and perhaps in science, have been irregular in their lives. Can we read the lives of Campbell, Edgar Allan Poe, Swift, Dick Steele, Goldsmith, or Harry Fielding, without regretting that this sad stain clings to their name? Read Charles Lamb's essay, "The Confession of a Drunkard," and in spite of all his tenderness and beauty, one must feel that the experience related is a personal one. The wonder is that such magnificently endowed human beings should drink alcohol to excess. The reason they do take alcohol, we believe, is to experience its calming or sedative action. The man who can paint the sunset with his pen, or with his brush, must be a sensitive, impressionable human being. He can blunt this sensitiveness by alcohol, and if he is a moral coward he will do so. Why, even Turner would sometimes revel in the low surroundings of a sailor on the spree. This class of drunkards is the most difficult to deal with. If the intellectual life is a high-pitched one, we may be quite sure that, when deadened by whisky the moral pendulum will swing back to the other extreme, and they will drink, drink, drink, until their common sense is lost, and their self-respect is shattered. They will go with a lie on their lips

to their nearest friend, to beg, to borrow, aye, even to steal.

Now the poor miserable dolt of a woman that one so often sees in the streets reeling along with the cress or flower basket on her arm, a group of jeering boys after her, with bonnet on one side and hair over her face, singing and shouting, probably drinks her gin to procure oblivion, to drown her poverty, to make her less susceptible to the troubles and worries of life. She, poor soul, has no object in drinking except to obtain forgetfulness. She will gain it soon enough. The parish coffin awaits her, and morbid anatomy will say: "Liver hard and nodulated." Go where we may, in the town or in the country, we meet with this class of drunkard who belongs to the group of human beings which sink lower and lower until they become a term of reproach and a mockery.

I am not now speaking of remedies. I can, and I do, pay my tribute of praise to all those who are fighting the demon alcohol, but in all seriousness I would ask them this question: Do you enlist into your ranks those who require abstinence, or, I ought to say, do you *keep* in your ranks those whose lives are being wrecked? I want more instances of permanent reformation due to the instrumentality of the temperance guilds.

I am not one of those who attribute every vice to drinking. I believe there is an improvement in the drinking habits of the English people. Liquor and laziness are still the two greatest sources of misery and want of success in life, but let any one read of Samuel Johnson in the year 1760, and he will be impressed by the hours which this rigid moralist spent in a tavern. Who does not remember his famous saying about port? "It is black, it is thick, and it makes you drunk." Old Dryden had his headquarters at Will's Tavern, in Russell Street, at the corner of Bow Street, whilst Addison had a sort of opposition rendezvous at Button's, across the way. Do not Hogarth's plates reek of alcohol? What an interesting history these taverns have, for they are intimately mixed up with the primary formation of free political discussions, and with some of the greatest names in English literature. Shakespeare used to frequent the Grecian.

In conclusion, let me simply say that if we wish to foster habits of temperance we must begin with the young. Don't let our zeal run away with our discretion. Let us teach temperance in all things. Let us go to human beings and tell them that alcohol is a poison, that given a perfectly natural life it can and is lived out better without it than with it; but that, combined with other things, it

does form an adjunct to food, just as pepper or mustard are mixed with our dishes, not because they are nutritious, but because they help us to take our meals. Above all things, let us grasp clearly this central truth: that a man must not lean upon either a blue ribbon or a guild to enable him to resist the evils (alcohol included) which will beset his path in life, but that he must go into the conflict with his face to the foe, fighting out in the open, and never giving the enemy a chance to stab him. Fighting one's desires is a lifelong tussle, whether it is against the alcoholic tendency or any other, but it is worth the contest, for a man's will, can, and ought, and must conquer, if he will persist it. Jeremy Taylor once said, "You want a long spoon to sup with the devil," and Jeremy Taylor spoke the truth. The drunkard must not touch alcoholic liquors at any time; if he does, he lights up in his body a fire he may never put out again, for alcohol is to him like blood is to the tiger.

One word more as to prohibition. The history of mankind teaches this lesson—that the more you try to prevent a man following his instincts, the more will that instinct be stimulated to action. And it is not, in my opinion, in the direction of Local Veto Bills that the remedy for drunkenness lies. We have tinkered long enough with the

liquor traffic, until it has become litttle more than a shuttle-cock, to be tossed about from one political party to the other. It is not by limiting the number of drinking-shops, or by shortening the hours of business, that sobriety will ever be an accomplished fact. It would be an enormous gain if this question could be approached with mental independence and without personal prejudice. For our own part, we should like to see the subject of alcohol taught in our schools. The young man or the young woman might profit quite as much, perhaps more, by knowing the truth about alcohol than by saturating him with facts about the equator or the torrid zone.

REMEDIES FOR ALCOHOLISM.

THERE is a saying that whenever we meet with a difficulty which presents unusual obstacles we find a cluster of remedies suggested. In the medical profession we have this exemplified by the quack medicines so largely advertised. Cancer is one of those pitiful diseases which excite all our desires to be rid of them ; but up to the present there is no remedy. Yet do we not find a new cancer cure blazed out to the world with all the loud vulgarity of ignorance? And it is only natural that we should find many cures before the public for dealing with drunkards.

It is unnecessary to speak of these, as they are all based on a fundamental error. The remedy is from the outside. We can undoubtedly substitute drugs which will produce the same effect as alcohol, but the remedy is worse than the disease. We can lock a man up, and by force cut off his drink, and if you could keep him under surveillance you might keep him sober ; but experience

shows that such restraint is very rarely effectual. I have known men who have signed under the Habitual Drunkards Act for three, six, and twelve months, and they have come out of these homes sober; but in not one instance has a cure been effected.

I am most desirous not to say a single word which would make the total abstinence party think that I am antagonistic to their object. Willingly would I pin the blue ribbon in my coat and wear it to the end of my days if I believed by so doing I should save one single individual from drunkenness. But is it not a fact that, in spite of the numerous societies, pamphlets, and works on the subject, the consumption of spirits increases?

Drunkenness is hateful and abominable, but it does not follow by any sequence of reasoning that because intemperance is a bad thing, that alcohol, the cause of it, is to be abolished. Take some corresponding illustrations. Are we to stop all fires because certain evil effects follow from the abuse of it? We might as well argue for the destruction of guns because some crazy individuals blow their brains out.

John Bright once uttered wise manly words to this effect: He did not value at the worth of a straw any such legislation for sobriety which rested on compulsion. What he did value was

the temperance which was the result of conviction. He would not force alcoholic abstinence on people, but he would desire that by silent waiting, watching, and self-communion, individuals should be led to impose the necessary restraint on themselves.

Unfortunately, during the past few years there has been, and there is, a growing tendency to attribute all error and all sin to irresistible impulse conveyed from the nervous system. The theory has been based upon the phenomena witnessed in epilepsy and somnambulism. In both these states we find individuals acting without any control from their higher moral centres. No sane man would blame an epileptic or a somnambulist if he were to commit some act of indiscretion; neither should we hold them responsible for anything which was committed during these states; but these are distinct diseases, and are recognized as such by the College of Physicians, and by common sense. But to teach that the man who steals the spoons from our tables, or transfers a watch from the counter of a shopkeeper to his own pocket, is to be looked upon as the victim of his own idiosyncrasy, is to preach bad morals and worse law. It abolishes the responsibility of the individual, and would make laws ridiculous. It is urged by some that it is so with

the drunkard, and the theory has been made the basis for legislation. This kind of grandmotherly philosophy takes the drunkard by the hand, and says, "Come with me before a magistrate, and sign under the Habitual Drunkards Act for three, six, or twelve months. You shall be placed in a home, where you will be relieved from all responsibility; where you will be well fed, and amused with billiards, and tennis, and golf; but where you will have no alcoholic drinks." After this lazy treatment comes the day when the liberty of a man is given to him again. But you let out the same organism, with the same failings. He, poor fellow, may doubtless believe that he has conquered his tendency; but his restraint has been the restraint of compulsion, and seldom, indeed, do we find realized the hope that the tendency has been overcome.

You will never make a good man by Act of Parliament. You may tie up a tiger, you may put him into an iron cage, but let him once taste blood and all his savage nature returns. Just so is it with the drunkard, only alcohol is as the blood to him. The fact is a stern one; nay it is a humiliating and a sad one; but it is best to face it and say boldly to such an one, "Be a man; don't whine about your inherited tendencies being too strong for you; or your nervous system being

unstable." Recognize the fact that a man seldom is punished in this world more than he deserves, that as he sows so he will reap ; and to such an one let us apply the stern words which Christ said to the erring woman, "*Go and sin no more.*" For a sin it is, and a very grievous one, when a human being deliberately swallows that which he knows perfectly well will rob him of his good name, of his manliness, and bring disaster, aye, even death itself, as a retribution. And the retribution is a just one.

It is extremely difficult for those who have not had the sad experience of the humiliation of drunkards to realize how completely external aid fails to check the evil tendency of a drunkard. There is far too great a tendency in the present day to invent social laws which will make the path of life smooth and easy ; far too much is done for us, instead of by us. Our Educational Acts, our free libraries, our sanitary and licensing laws—all very well in their way, perhaps—have the effect of relieving a man from responsibility, from individual effort, and the principle underlying this kind of legislation is spreading. Nowhere is it so palpable as in the drink question, and in the restrictions under which the trade is carried on. Look at the licensing laws which fix the hours during which a man is allowed by law

to drink intoxicating liquors in a public place. Where is the wisdom or logic of turning a man out of a public-house at 11 on Sunday, while he may drink his fill till 12.30 on Monday? Personally, I should be willing to leave the publican to fix his own time of closing, and think it would tend in many cases to shorter hours. For the legislation which restricts the hours also says that he must keep his house open until that hour, and the unwilling publican has to bow his head and obey. But in giving this freedom as an experiment I would couple it with greater responsibility, and it is to this personal responsibility on the part of the publican and the drinker that I should look for favourable results. I would give the liquor trade very clearly to understand that no man was to be served who was drunk, that no young people should be allowed to stand and drink at the counter, and I would see that these instructions were carried out. I would hold the publican strictly responsible for any drunkenness upon his premises. Then as to the man himself. If a man is found drunk, he should be punished—lightly in the first instance; but if he falls again, the penalty should increase. If he can afford to get drunk, he can afford to pay fines; and if he is locked up—well, he is not fit to be at large, and is better locked up. It is this personal responsibility

brought home to the parties themselves which, in my opinion, would prove the most effectual to check the reckless race of the drunkard. Even a man pickled in alcohol will feel the sting of public punishment.

We are apt to say glibly that alcohol is the cause of intemperance, though we might with equal truth say that cards are the cause of gambling. But there are many respectable citizens who enjoy a game at whist without gambling, and would it not be a monstrous injustice to say there shall be no more cards because there is gambling? No, behind all we must see with a clear mental vision the fundamental truth that alcoholic liquors are drunk by men and women to blunt, and, when used in excess, to throw a veil over the conflicts of life. This is a mean and a cowardly thing to do—to act like a poltroon in indulging to such an extent that we benumb our moral sense and destroy our right to be called human beings.

Much might be said about the homes of the poor, the lack of healthy recreation, the difficulty which a man encounters in finding in London a place where he can sit down and smoke his pipe, and talk with his friends without being expected to drink. If we want to fight intemperance in drinking, we must fight the enemy with his own tools. Let us put into the place of the craving for

alcohol something which will drive the tyrant out of the citadel. The practical question is, how are we to secure this result? We shall never bring about temperance by using intemperate language. It was the late Dr. Moxon who invented the phrase "*intemperate abstinence*" as applying to those who say every kind of alcoholic liquid is an unnatural product and a poison, and introduce into their vocabulary much that offends good taste and common sense.

And are we right in asking a man to sign a pledge when he is in an alcoholic state? Are not the chances a hundred to one that he will break his written vow, and by so doing commit two sins instead of one? I have tried the experiment on a man who was an inveterate drunkard. He came to me with the usual symptoms of a debauch. His trembling hands, bloated face, and foul breath all told their own tale. The man was physically ill, and morally ashamed of himself. He said, "Put me right this time and I will never touch drink again." I said, "Your words are of no more value than is your breath," and he actually shed tears of remorse. I then said, "I will write this down: 'I give my word of honour that I will not touch wine, beer, or spirits for seven days.'" The test was an easy one, and this he signed with trembling hand. In four days I met that man in

the street, staggering along, and his wife told me that he had actually gone into a public-house on his way home and drunk brandy. Such instances are as common as blackberries.

Not many years ago it was not considered unbecoming the conduct of a gentleman to get drunk; for have we not all read of the three-bottle squires, and even the drunken member of Parliament, and the retention of the words "as drunk as a lord" shows how little stigma attached to the fact of a man getting into his cups. Now it is looked upon as a lasting disgrace for any man to become intoxicated or to present himself in an alcoholic state in a respectable house or in the senate. The improvement is due to the strong social opinion against, drinking which has grown up during the last fifty years, a social opinion which is as irresistible as a law of nature. If we look upon society as a triangle, we shall find the largest amount of drinking is done by those who, from no fault of their own, live at the base; and it is by teaching the use and the abuse of alcohol in our churches, our schools, and our lecture halls that we shall be able to light up a true feeling that alcoholic excess is a social and moral crime, which must lead to loss of health, social wreckage, and an early grave.

To the individual drunkard there must be no

quarter shown. He or she must be told that their only safety lies in their own efforts. They must sweep out of their beings the cravings for strong drink, and they must set about it at once. Procrastination always leads to disappointment. We all are subject to the infirmity of "putting off." Gordon used to say the best servants he ever had were, "Do it yourself and do it at once."

As we have noticed, the largest mass of drinking is now found at the base of the social triangle; but it would be decidedly untrue to say that it is only the working man who is a drunkard, because daily experience will bring us in contact with some of the highest intellects who have become victims to intemperance. For them there is no excuse. But I can quite understand how an artisan, living in one room, with a wife and a large family, will seek for light, and cheerfulness, and oblivion in a public-house, and it is absurd to say that all places where drink can be obtained are dens of iniquity, for there are very few of us who have not pleasant memories of old, yes, and new inns. Just imagine what would happen if we were to pass an Act of Parliament which would give the majority in a village the power to close the public-houses. Would not the very places where drunkenness was the most rampant, by an overwhelming majority, keep their drinking-shops open? whilst in the

areas where the people were sober, the public-houses would, by an equal preponderance of votes, be closed ?

It is not only with intemperance in alcohol that we have to fight, for do we not find thousands who commit excesses in eating, gambling, and manifold ways? and if we wish to deal with such questions, we must teach the old and the young, and the middle-aged, that they are free, but that they are responsible. Glance at those who have been most successful in the training of others, and you will see how the key of their success has always been in recognizing these two factors. Dr. Arnold, of Rugby, was one of the highest principled men this country has ever known. He went to Rugby when the school had fallen to a low condition ; he left it with the best reputation of any in the three kingdoms. No man ever taught more earnestly the stern lesson that he who does wrong will inevitably suffer. On one noted occasion after he had discovered the boys had been disobedient, he burst out with these words: "You are free, but you are responsible ; you are Christians and gentlemen. We leave you much to yourselves, because if you are guarded, and watched, and spied upon, you will grow up knowing only the fruits of servile fear, and when your liberty is finally given you, as it must be to all some day,

you will not know how to use it ; it will be like a wild beast, which will turn and slay you, which might have been taken young and tamed with gentle sternness to be your protection and delight."

Noble words and noble sentiments these. Would that every drunkard in the United Kingdom would grasp their true significance and act up to their teaching. Would that each one whose will is weak and purpose infirm would make the great personal effort, and struggle with his drink-taste. The struggle is not an equal one, for there are thousands of people who never would become drunkards. For such there is no need for alcoholic warnings. But there are others to whom, from inherited tendency, acquired habits, or over-mastering environment, the struggle is a real, ay, and a difficult one. But it is not an impossible one, for in every sane human being there is the sense of right and wrong, and the free-will to enable a man to go to the good or to the bad.

I have made much of this question of individual responsibility, because I am so firmly convinced that if we are to reclaim our drunkards we can only do so by making them feel the effect of abusing that responsibility. In the first instance alcoholic excess begets only a fugitive suffering. The morning headache will pass away, and a man

will laugh to scorn any attempt to show him that he is staining his body and his soul. And if moral influences will not stop him, physical ones must be brought into operation; but, in my opinion, not restraint, unless, indeed, it is continued for a long period.

I have often thought what an advantage it would be if we could take a small island, such as Lundys off the Devonshire coast, and prohibit the introduction of a single drop of intoxicating liquor into that island, and there send our inveterate drunkards, making them work whilst on the island. After a time (I cannot even guess how long) the alcohol would be eliminated, and the man or woman might, I cannot say they would, pass into the crowd and resist their temptation. I confess, when I glance back upon my whole medical experiences, I know of nothing which has caused me sharper pangs of sorrow, or brought home to me a sense of my own impotence more profoundly than those drunkards with whom I have had to deal. Picture after picture springs up in my retrospect of men and women, some attractive, some clever, and rich, who have baffled all attempts to keep them away from alcohol. And it is such memories which cause one to say, Has human nature become so weak a thing that it cannot resist a temptation or kill a habit?

I cannot bring myself to the conviction that total abstinence ought to be the universal rule or law of life. I often wish I could do so. Every individual must ask himself this question, "Can I trust myself to drink intoxicating liquors?" And if his conscience says "no," then that man or woman is a slave to intemperance if he or she has not the resolution to obey this conviction.

I do not believe that the legislature can do much to check intemperance, because legislation can only deal with the effect. We must strike down deeper to the very root of the matter, and if we do, I believe we shall find our remedies are moral, physical, and sanitary ones. If we are able to rouse up a wave of public sentiment which shall make men and women feel that drunkenness is a shameful thing; if we can drive home the truth to men's minds that over-indulgence in alcohol will destroy the health of the individual, lower his power of work, and shorten his days; if we can make the public see that unhealthy homes and want of reasonable recreation are all causes of intemperance, we shall, I firmly believe, do far more to strangle intemperance than by all the restrictive laws the House of Commons can pass.

These remarks have been made in no hostile

spirit to any sect or party, but are an honest endeavour to deal with the question in a practical manner, and with a fervent hope that, in the not distant future, drunkenness will be looked upon with the same hatred as lying or stealing. Once secure this, and your alcoholic battle is won for the cause of temperance, for of all the forces in the world the emotional is the most powerful. We have now on the side of temperance all the reason of the race, nearly all the scientific opinion, the experience of insurance offices, and we have the instinct of the people. So far as I know, there are no statistics which prove conclusively that entire abstention from alcohol prolongs human life. Professor Humphry tells us that fifteen per cent. of old people who had lived to from eighty to one hundred years had taken no alcoholic drink at all throughout the greater part of their lives—it would be interesting to know exactly what this last sentence means. Forty per cent., he tells us, had been in the habit of taking a little, i.e. less than a pint of beer, or two glasses of wine; thirty-three per cent. had been accustomed to take it in "moderation," i.e. one or two pints of beer daily; and less than nine per cent. had taken more than this.

The professor goes on to say that fifteen per cent. had drunk rather freely, two or more pints

of beer daily. Dr. Iambard Owen, in the *British Medical Journal*, June 23rd, 1888, says, "It is stated that in 4234 returns made the average duration of life was greatest (sixty-two years) in those who were designated temperate, that is, those who drank small amounts, and only with meals, and who rarely took spirits, and that a gradual diminution, amounting in all to rather more than ten years, was found to take place in passing down the scale to the 'decidedly temperate.' Dr. Owen is careful to point out the preponderance of early ages amongst the living total abstainers, and the consequent greater opportunities for early death, and this may introduce a fallacy. Still, after making every allowance, the balance of the opinion of the English-speaking people is against total abstinence, just as decidedly as it is against intemperance.

In dealing with this question I have not felt justified in approaching it from the highest of all points of view; but I cannot end my remarks without stating my firm conviction that the individual reclaiming of a drunkard can only be accomplished by a recognition of the Divine ruling of our destinies, and above all things let us grasp the eternal truth, that the man who hopes will always conquer, whilst the man who despairs will fail.

DOCTORS' FEES.

SIR RICHARD QUAIN, President of the General Medical Council, not long ago met with a slice of good fortune. One of his patients, a Mrs. A. T. Hall, of Brompton, who died a short time since, left him a legacy of a thousand pounds. From the earliest times the healer has always received fair remuneration for his services. The use the Churchmen made of their medical position throughout Christendom is evidenced by the broad acres which belong to them. But since the Reformation the cure of the body has separated further and further with advancing years from the cure of the soul.

The following story is told of Arbuthnot. When he was a young man he practised at Dorchester, but the town was so healthy that he had little if any practice. He said it contained scarce half a dozen sick inhabitants. Arbuthnot determined to leave such a barren field. "Where are you going?" shouted a friend who saw him

riding towards London. "Going to leave your confounded place," was the answer, "for a man can neither live nor die here." Arbuthnot, however, never made a fortune, as only a few weeks before his death he wrote to a friend, "I am as well as a man can be who is gasping for breath and has a house full of men and women unprovided for."

This was the man who attended Swift and Pope, and won the patronage of Queen Anne herself. The fact is that from remote times the fee of the physician has been a voluntary contribution, more or less, and still there is no fixed rule by which a doctor can estimate his charges.

This applies to the humblest as well as the highest member of the medical profession, and it is well it is so. Money cannot repay a surgeon for those brilliant triumphs of his science which snatch a victim often from the very jaws of death, neither will the most gigantic cheque we can conceive compensate a physician for the hours of work often undertaken in the dead house. There is a good deal of labour which must be done without thought of reward. We are inclined to believe that the only line which separates a trade from a profession is the one of motive. Immediately the doctor looks upon his profession as a money-making

affair, and a money-making affair alone, he drops down from the high position which he ought to occupy, and becomes simply a tradesman. *Vice versâ*, if the tailor, or the shoemaker, thinks more of the cut and fit of his clothes or shoes than he does of the price he is to charge, he rises out of the rut of commerce, and becomes a professional man. The same rule will apply to the miner, the ploughboy, or the shepherd. Only those who are familiar with the lives and daily work of a London physician or surgeon are aware of the time and energy which are spent in treating the sick poor. This time and energy are ungrudgingly given by many of those who occupy the highest positions in the medical profession. Abernethy was once jumping into his carriage to visit his patients in Bartholomew's Hospital, when a messenger ran up and asked him to go at once to a rich man who was very ill. Abernethy at first said, "Drive me to him." Then, with a sudden burst of the sympathy which distinguished all his life, he said, "No, the poor at the hospital cannot call in another doctor—drive to Bartholomew's Hospital." When we get outside the medical profession we shall find ample evidence that the quack always thinks of the money first.

"Here's fourteen pills for eighteen pence,
Enough in any man's own con-sci-ence,"

was imprinted on the lid of Case's pills, a once popular remedy.

Those who have experience of medical practice will agree with the writer that there is a wide gulf which separates the generosity of an individual who is in pain or danger from one who has recovered.

A story is told of Bouvart which illustrates this fact. On entering one morning the chamber of a French Marquis, whom he had attended through a dangerous illness, he was accosted by his noble patient in the following terms :—

"Good day to you, Mr. Bouvart, I feel quite in spirits, and think my fever has left me."

"I am sure it has," replied Bouvart, dryly. "The very first expression you used convinced me of it!"

"Pray explain yourself."

Bouvart said, "Nothing is easier. In the first days of your illness, when your life was in danger, I was your *dearest friend;* as you began to get better I was your *good Bouvart;* and now I am *Mr. Bouvart.* Depend upon it, you are quite recovered."

There is an old Latin maxim which says: "*Accipe dum dolet,*" which, being freely translated, means, "Take your fee whilst your patient is in pain."

The Chinese physicians at the Imperial Court have their salaries stopped during a Royal illness. Not very long since a celebrated surgeon was defrauded of a fee under the following circumstances: He received in his consulting-room a gentleman of good presence, who implored the surgeon to perform a very difficult operation. The surgeon consented, and on being asked what his fee would be, he was told a hundred guineas.

"Sir," said the patient, "I am sorry to hear you say so, for I have not got a hundred pounds in my possession."

"My dear sir," replied the surgeon frankly, and with the generosity which is so frequently found amongst medical practitioners, "don't disturb yourself. I cannot take a less fee than I have stated, for my character demands that I have not two charges, but I am at liberty to remit my fee altogether. Allow me, then, the very great pleasure of attending you gratuitously."

The offer was accepted, and the patient successfully operated on, when the surgeon discovered that he had been taken in, as his patient was really a rich man.

The surgeon was a good deal chaffed about it, but he said, "I'll act exactly in the same way to the first poor man who gives me his *word of honour* that he is not rich enough to pay me."

Sir Astley Cooper was probably the most successful surgeon of the past; his income one year was 21,000*l.* The largest fee he ever received was given him by a West Indian millionaire called Hyatt. This gentleman, having occasion to undergo a painful operation, was attended by Sir Astley as surgeon. The treatment proved successful, and the patient was so delighted that he gave his two physicians, Lettsom and Nelson, 300 guineas each.

"But you, sir," cried the grateful old man, sitting up in his bed and speaking to his surgeon, "shall have something better. There, sir, take *that*"—the *that* was the old man's night-cap, which he had flung at the operator. "Sir," replied Sir Astley, picking up the cap, "I'll pocket the affront." It was a good thing he did so, for in the cap he found a draft for 1000 guineas.

It is curious to notice the tenacity with which the consulting physician clings to the guinea. When Erskine used to order "The Devil's Own" to charge, he would cry out to the corps of lawyers, "'Six-and-eightpence,' forward." I suppose if we had a volunteer corps formed of the sons of Esculapius their colonel might say, "Twenty-one shillings, forward."

An old gentleman once consulted a celebrated physician, and, putting down his sovereign, was

about to depart. "My fee is a guinea," said the physician. The old gentleman was very irate, and blankly refused to be a party to such an absurdity as payment by guineas, and he gave his medical adviser two sovereigns sooner than pay the shilling.

A great deal too much is often made of enormous fees received by celebrated physicians. It is said that the late Sir Andrew Clark once received 5000*l.* for visiting a patient in the south of France. It is only just to Sir Andrew's memory to say that the fee was a voluntary one on the patient's part, and that he, with rare magnanimity, gave it entirely to the London hospitals.

We have already said that it was impossible to pay some services of the medical profession by means of money. This is singularly true. Money cannot compensate a man for disturbed nights, constant toil, and anxious care. The reward must be paid by gratitude and confidence, and we firmly believe it is. Many an obscure member of the medical profession, practising in a remote village of England, has been followed to his grave by the love and respect of every individual within reach of his work. Far too often has he struggled on, driving or riding, hour after hour, summer and winter, day and night, going about doing good, with a money reward which it is an insult to call

remuneration. We know of such. They are some of the brightest types of a noble profession. They are doing a difficult work, and they are doing it well and willingly. A country doctor is frequently said not to be up-to-date, but place any of the foremost men in the profession in a village, miles away from assistance, and ask him to be ready to meet every medical and surgical emergency which comes before him, we venture to say there is not one who would deny that the country doctor would be far better able to deal with the difficulties than he would.

A good deal is often said about the miserable pay received by medical men for services rendered under the Poor Law system. Looked at from a purely commercial point of view the pay is inadequate, often not coming to as much as is received by an artisan; but looked at in another light it gives the doctor experience, and that opportunity for coming into contact with the public which is the highway to success in practice. I once heard an eminent London physician say, "I found my way into the pockets of the rich through the hearts of the poor," and an excellent way it is to travel to success.

The poor are very quick at perceiving medical merit; their maladies are to them serious hindrances, and they instinctively drift to those

who cure them the quickest. They know who has the true professional character, and there is no more pleasing sight than to see a consulting physician, or surgeon, going round the wards of the hospital. The care and courtesy shown to the sick poor makes one think better of humanity, and shows us that sympathy with sickness is a part of the good man's religion.

But some men are not as grateful as they might be. A well-to-do grocer was employed in cutting a piece of cheese with the triangular knife used by that trade for this purpose. By some clumsiness the knife slipped, and cut into the important artery of his leg. The rush of blood was instantaneous, and would have killed him in a minute, if a cool-headed shopman had not had sufficient presence of mind to staunch the blood by pressing upon the vessel. The pressure partially checked the stream, and the man was laid on a shutter, and brought to the hospital, which was only a hundred yards away from the place where the accident occurred. The house surgeon recognized in a moment the imminent peril in which the man was placed, and with a quick insight, which did him credit, saw that the transfusion of living blood was the only chance for saving his life. He called for the necessary apparatus, which was always at hand for such emergencies, and

simultaneously half a dozen bare arms were thrust forward, willing, without a moment's hesitation, to sacrifice their blood for this man's sake. Quickly was the connection made, and the live blood could be seen to mantle into the blanched lips, and we had a man literally snatched from the jaws of death. The student selected was a lusty youth, and he fell down in a faint from the drain of blood. The injured man was attended to in the orthodox scientific manner, was put to bed, and in two weeks was discharged from the hospital cured.

The student unfortunately contracted erysipelas in the wound, and for nearly three months his life hung in the balance, the loss of blood which he had sustained making him an easy victim to the ravages of the malady. Ultimately youth and good nursing, backed up by a cheery hope, pulled him through, and he was able to go away, and ultimately got quite well.

Now comes the disappointing part of the tale. The man whose life was saved contributed five pounds to the hospital funds, gave the house surgeon a meerschaum pipe, and the student a walking-stick. He never acknowledged in any other way the saving of his life.

The medical profession has never done its work with an eye to reward. Many of those whose efforts have been instrumental in saving thousands

of lives have received but little reward. And it is well it is so. Jenner, who discovered vaccination, was not made wealthy by the discovery which has conferred an unrivalled blessing upon the race, for to walk through life scathless from the ravages of small-pox is a freedom which we do not now appreciate. The magnificent discoveries made by Sir Joseph Lister have enabled surgeons to perform operations now with safety, which twenty-five years ago were considered impossible. These discoveries have been given to the world freely, frankly, and ungrudgingly; and those who were the first to strike these great truths would, we feel sure, be the last to wish otherwise. But when a well-to-do man suddenly finds himself on the brink of eternity, and when he is saved by the quick intelligence of one man, and the ready sacrifice of another, we have a right to expect some more tangible evidence of gratitude than those tokens which were given in the incident we have referred to, for, as Rousseau finely says, "Gratitude is a duty which ought to be paid, but which none have a right to expect."

The fact is that money cannot purchase skill, or sympathy, or heroism; but money can buy houses, and bread, and horses; it will pay rent and taxes; it will enable the hard-working doctor to take his necessary holiday. And when we read of

those who can pay a doctor stooping to the meanest devices to creep into the hospitals as patients, and whilst there to obtain the highest and the best medical skill *without paying for it*, then does the lesson strike home, that hospitals ought to be institutions for the treatment of those only who cannot afford to pay a doctor. If this rule were rigidly carried out, the hospitals would be richer, and so would the doctors. The difficulty is one of detail which no official care can overcome. The cure is with the public. They must be taught to realize the fact that charity means alms in relief given to the poor, as well as tenderness, kindness, and love.

NURSES.

HER ROYAL HIGHNESS the Princess of Wales will not number amongst her thousand acts of sympathetic generosity one which will appeal more to the hearts and minds of the people than her reception and decoration of the nurses of the Royal National Pension Fund at Marlborough House.

The Prince of Wales, speaking on behalf of the Princess, made some practical remarks, and expressed a hope that the badge which was given by the Princess to each nurse should cement them to her Royal Highness.

It is necessary, in the first instance, to go back to the Crimean War to understand the position of nurses at the present day, and how it has been brought about. Up to that date nurses had been drawn from a class of women who were either unfit, because of physical difficulties, or loss of moral qualities, to follow any other pursuit; and Dickens exaggerated very little when he drew

"Mrs. Gamp." Such women as these were the only ones who would take to nursing, because it was looked upon as a loathsome calling. Then came the dramatic episode of the Crimean War, when it was found that our soldiers were dying like flies because there was no one to nurse them. A letter from William Howard Russell, written from the seat of war, stung the English people. It was couched in these terms: "The commonest accessories of a hospital are wanting. There is not the least attention paid to decency or cleanliness; the stench is appalling; the fetid air can barely struggle out to taint the atmosphere, and for all I can observe the men die without the least effort being made to save them. There they lie, just as they were let gently down by the poor fellows, their comrades, who brought them on their backs from the camp, with the greatest tenderness, but are not allowed to remain with them. The sick appear to be tended by the sick, and the dying by the dying."

Then he goes on to say, "Are there no devoted women amongst us, able and willing to go forth to minister to the sick and suffering soldiers of the East in the hospitals of Scutari? Are none of the daughters of England, at this supreme hour of need, ready for such a work of mercy?"

Florence Nightingale read these words in her Derbyshire home. They awoke in her a spirit of patriotism which soon translated itself into action. She knew that only a woman could, by her ready help and true sympathy, save the racking pain or smooth the dying man's pillow. To her honour be it said she never hesitated, and in a fortnight's time, a little after the Battle of Alma, Florence Nightingale sailed from England with a band of devoted women.

Then came the carping critics on the scene. They sneered "Who is this Miss Nightingale?" They shook their cynical shoulders, and said, "A young unmarried lady going out as a hospital nurse to attend to soldiers!" But such words had no effect. They never checked the determination of Florence Nightingale. She was made of sterner stuff than that which bends away from the path of duty.

All the world knows how she was received by the wounded and sick soldiers; how they would kiss her shadow as she went through the long rows of soldiers at night; how she was called "The lady of the lamp," and we have the poor fellows writing home, and saying, "To see her pass is happiness; she would speak to one, and nod and smile to many more, but she could not do it to all, you know. We lay there by hundreds, but we

could kiss her shadow as it fell, and lay our heads upon the pillow with content."

> "And slowly, as in a dream of bliss,
> The speechless sufferer turns to kiss
> Her shadow as it falls
> Upon the darkening walls."

When Florence Nightingale first went to Scutari our men were dying at the awful rate of 60 per cent; when she left it the death-rate had dropped to 3 per cent. This was brought about by the wit and sympathy of one woman. Our unwieldy official machine had been powerless to check the mortality, and it is no small honour to the whole of womankind to remember that a fine, sensitive, educated gentlewoman went fearlessly into the midst of sickness and suffering, and, almost without assistance, organized a system which made many a man's journey to the grave peaceful and easy, and, what is of more importance, that she was instrumental in saving the lives of thousands of our countrymen. Good work like this can never die; it is a force which will carry with it all that is best in the race. And from this episode in Florence Nightingale's life we can trace the enormous development of nursing. Go where we will, we meet with those who wear the most becoming of all dresses, combining the qualities of cleanliness and simplicity. Mrs. Grundy comes

forward and says, "So many girls take up nursing to wear the dress, or to get away from home." Some may do so, in the first instance, but the really hard work which a probationer has to do will soon knock any nonsense of this kind on the head.

And why should not a woman be proud of the badge of her calling, if that calling is an honourable one? Don't we all know soldiers and sailors who are proud of their uniform? This, however, is quite outside the whole question of nursing. We want to ask this: "Is this tremendous development of nursing in favour of the progress of women, and for the advantage of the sick?"

There can be but one answer. Oliver Wendell Holmes said, "A woman goes into a sick-room a woman, and she comes out an angel." The truth is here expressed in phraseology which is not easily forgotten, and it contains a great fact. All women have implanted in their nature a sympathetic benevolence. They must care for something. It is this attribute which gives them such enormous power in the sick-room. I believe there is not a doctor living who would not agree with me in saying that a good nurse is as essential to the recovery of a patient as a doctor, and it ought to be gladly remembered that these good women are at the beck and call of the British public. It is their

duty to go wherever they are sent for. It is their duty to enter the sick-chamber, even if that chamber contains a most contagious malady. Night after night a nurse must stand there patiently, uncomplainingly, and unselfishly, doing her essential service. And how nobly she plays her part. I never heard of a case in which a nurse could not be obtained, no matter how serious the risk. Work such as this cannot be paid for in pounds, shillings, and pence. All we can do as men is to stand on one side and pay our tribute of homage to such heroism. We honestly think it has never been sufficiently appreciated or sufficiently recognized. The courage of the soldier or sailor is a noble attribute, but his act is played out to the crack of the cannon and the sound of the drum. The acts of heroism played by the nurse have different surroundings. There is no glamour, no applause, for her; but there lies the sufferer, breathing out, it may be, with every expiration a poison, invisible, but none the less deadly, and she must wait and watch, and watch and wait. Many have paid the penalty of death, many have damaged their health by their sacrifices. And if this Royal National Pension Fund provides aid for those who are stricken down in their work, or incapacitated by age, it should attract subscriptions and aid from all of us, and good wishes for its

success. Speaking as a member of the medical profession, I consider we owe a debt of gratitude to the nurses of this country which we can never repay. Having their assistance now in all cases of importance, it is difficult to think how we managed in past times without them. I know their loyalty to our profession full well, and for my own part, I fully recognize that the nurses of England are an honour to their sex, and a credit to their country.

FRETTERS.

It is a common observation, and one that has been made by the thinkers of every generation, that man is always sighing for something which is not his.

We, who live in an age of luxury and extravagance and ease, pretend to ourselves to desire "the good old times," when life was more earnest, when luxury was less known, and when men had to stand forward and meet the forces of nature without the protecting shelter of modern knowledge and improvement. And surely no reasonable being will doubt but that those who lived in "the good old times," yearned as we do, but their yearning was for that very protection from elementary dangers which we now can enjoy.

Individuals are to be encountered in every rank of life who wait and whine from day to day because Providence has not fitted them into positions different from those in which they stand. The butcher loathes the cold sloppiness of his

trade and longs for the warmth of the bake-house. The baker revolts against the black-beetles of his oven, and envies the cool, clean, blue butcher over the road. These minor fretters do but little damage, except to their own peace of mind; but it is among the little congresses of men cherishing in common some entirely imaginary grievance that we see and feel and know the full force of congregated fretters. No man can go out into the world and fail to remark that whole sections of society are spending their best energies in grumbling over grievances, susceptible of no alleviation, which often do not exist at all. A good deal of this dissatisfaction is the work of the busybody—and especially the newspaper busybody, who delights to poke his inky nose into other people's private affairs and shriek.

For these exciters of fretting we might very well go back to "the good old times" to find a remedy, and think that the horse-pond would be best calculated to produce a cure. "Mind your own business," may be an old woman's apophthegm, but therein lies sound philosophy and sounder sense. I have known men and women made miserable for days, ay, and for years, because some candid friend has said, "You don't look well," or "How altered you are." Those who are in the midst of a medical practice will bear

witness to the truth of what I say. Some few individuals like to be thought well and healthy, but the majority boast of and cherish imaginary maladies.

It is a very different thing when real disease lays its hand upon a man or woman, it is then amazing to see the pertinacity with which they dodge and evade the enemy. This is most remarkable among consumptive patients. These poor creatures, often the most beautiful and attractive of our race, will assume a cheerfulness and hopefulness, even in the very presence of death, which are astounding.

A few years back a well-known ballad singer was dying rapidly with consumption. His friends had told him so, but nothing could make him admit that he knew of his approaching end ; and the very day he died he sang one of his favourite songs to some people who had come to see him, saying, "How can a man have anything amiss with his lungs when he can sing like that?" It is a common error to believe that a loud-voiced man cannot be consumptive.

It is only right to say that some diseases, notably those attacking the liver and stomach, are associated with depression and gloom ; but this is not always the case. Cheerfulness, in the presence of a fatal malady, is a beautiful compensa-

tion, and is at all times to be encouraged. Let us surround our suffering brethren with light and colour and cheerful countenances, and show to the door the long-faced and sepulchral friends who insist upon telling the dying ones how ill they look and how wasted they are, for such croakers are simply pestiferous nuisances. We may rest assured that, in almost all cases of fatal illness, the victim receives from the Master of Life and Death a sense of his or her approaching end, and it lies in the province of no one to cast shadows upon the journey to the grave. The consolations of religion should be a man's solace in this extremity, and the fretful irritating gibberings of such friends should be avoided.

It is a very easy thing to go to individuals or to groups of individuals and point out to them grievances which they do not feel or even know of; and unless these grievances are real and can be done away with, such interference is both wicked and unwise. The story of the Princess Parizade, in the "Arabian Nights," will illustrate what I mean. The damsel lived with her two brothers in a palace built in the most exquisite of eastern gardens. It happened one day, while the Princess was out hunting, that an old woman came to the gate, begging leave to enter the oratory to pray. Her request was granted, and when her

prayers were ended she was permitted to feast her eyes upon the splendours of the palace. Fruits and sweetmeats were offered her, and finally she was admitted to an audience of the fair Princess, who asked for her opinion of what she had seen.

"Madame," answered the witch, "your palace is beautiful, its situation magnificent, and its gardens are beyond compare. But still it lacks three things before it could be declared perfection."

"My good mother," interrupted the Princess, "what are these three things? I conjure you to tell me, and if there be a possibility of getting them, neither difficulties nor dangers will daunt me."

"Madame," replied the old woman, "the first is the talking Bird, the second is the Singing Tree, and the third is the Yellow Water."

"Ah, my good mother," said the Princess, "how much am I obliged to you for this knowledge! These things are no doubt the greatest curiosities in the world, and unless you can tell me where they are to be found, I shall be the most unhappy of women."

The story goes on to tell that her brothers, on their return home from the chase, found the Princess Parizade wrapt in thought and shrouded

in gloom; but after much persuasion she spoke to them in the following manner :—

"You have told me, my dear brothers, and I have always believed you, that this palace which our father built was perfect and complete; but I have learnt to-day that it lacks three things, the Talking Bird, the Singing Tree, and the Yellow Water, for an old woman has made this discovery to me. You will consider these things to be mere trifles, no doubt, but I am convinced that they are absolutely necessary to us, and whether you value them or not, I cannot be easy without them."

The sequel tells us how after the Princess Parizade had thus spoken, her brothers went in pursuit of the three rarities, because their sister afflicted herself in her desire for them, and failing in their enterprise, they were each turned into stone.

The moral of the story is excellent and of wide application. Let us take a very ordinary example. All of us are bitten with the mania for travelling. We are told it is "very John Trott" not to have visited the Continent, and so thousands rush off to visit cities they care not a whit for, and see sights they cannot appreciate, living upon unusual or indifferent food, and generally knocking themselves up with hurry, worry, and malaria; all this solely because some ass brayed that they ought to go

abroad, and leave our own beautiful England neglected.

Happiness does not lie in the possession of things we fancy we should like to have. These yearnings after Talking Birds and Singing Trees exhaust the finer energies of thousands of human beings every year, and leave them discontented miserable *fretters*. Goethe says, "To desire to get rid of an evil is a definite object, but to wish for better fortune than one has is a blind folly." The fact is that we rush through life so rapidly nowadays that we do not even notice the flowers on every roadside, and the everlasting and altogether vulgar struggle for money or popularity or fame prevents us from enjoying our life as much as we might, and, indeed, as much as we ought to do.

Important matters must attract and receive our attention, and very often cause some anxious worry, but, when we have once seen clearly the road upon which we intend to travel, let us look well to our girths and then ride boldly on.

A physician knows, perhaps better than most men, the advantage of having a patient who is not one of these wretched *Fretters*. It is on this account that children and ignorant persons often make such good recoveries. They do not know the significance of a high temperature, or of a

rigour, but silently meet the foe and gain a cure by their very simplicity; but when disease attacks the physician himself we are very likely to discover a perfect type of the *Fretter*, and an uncommonly troublesome charge he is to his medical attendant, his nurse, and his friends. He will analyze his own symptoms with as much care—and a good deal more excitement—than he would bestow upon a patient, and even in the hour of death he will question those around concerning his condition. Dr. Adam Clark, who died during the cholera epidemic of 1832, whilst suffering from the icy coldness characteristic of the disease, said, in the hour of death, "Am I blue? Tell me, are my lips blue?" Harvey, the discoverer of the circulation of the blood, kept making observations on the state of his pulse when life was slowly ebbing away.

What we want to see lessened is the constant fretting about little ailments. We cannot expect to pass through life without some link in the chain being damaged or broken (we know the strength of the chain by its weakest link), and although disregard of the warnings of feebleness or pain is by no means to be advocated, we do, with all our might, protest against the frantic endeavour to discover a pill for every ache, for the fretting about trivialities is adverse to the health and happiness and well-being of mankind.

Fretters would do well to throw themselves into some kind of work which will turn their thoughts outwards and away from themselves. One of the strictest rules in the education of Roman boys was that they were at all times to stand to learn, and that nothing was to be taught them which would oblige them to sit. And there is truth in the Spanish proverb, "Idleness is the parent of all the vices."

CONTENTMENT.

JOSH BILLINGS says, "Human happiness konsists in having what yu want, and wanting what yu hav." And there is a great truth contained in the saying. The difficulty lies in knowing what you want. I think if we were either to analyze our own feelings, or the feelings of others, we should be forced to admit that few, if any, are, in the strict sense of the word, *contented*. If we take any section of human beings we shall find there is always a longing for something which is not within their reach. The tall man longs for a few inches less of height; the short man sighs for six feet in his stockings; the scholar envies the plough-boy who swings on a gate, and cuts his bacon and bread with a relish to which he is a stranger; the rich envy the poor, and the poor envy the rich. In the callings of men we notice the same restless discontent. The political atmosphere hums with the sound of many voices crying out for fewer hours of work; yet, by a strange irony, we find

that happiness dwells with those only who have plenty of work and love occupation. We are afraid that the demand for reduced hours is not always made with the idea of producing good results. Let no man believe that this is a sure road to social happiness. If he does, he will find himself mistaken. The pains and penalties paid by idleness, "stretched on the rack of a too easy chair," no man can even estimate.

If we wish to be healthy and happy we must struggle to make the work we are engaged in a labour of love. We must throw our whole energies into it. Then the man who paints my front door will be as much of an artist as the one who gives us his best efforts in landscape. This enthusiasm does certainly exist. Perhaps we may think that the labourer cannot get absorbed in his work, that sowing grain and hoeing turnips are deadening processes. But experience proves the contrary. I have known a farm labourer grow quite enthusiastic over a crop of beans. And this interest is to be encouraged. The problem is: How is it to be accomplished? Certainly not by the deadening process of so much an hour for so much work; certainly not by the sweating process. No! We want to turn the labour question round, and pay a man for the quality of his work, and not simply for the quantity. In

these days of keen competition, when the prize seems to go to those who boast the loudest, it is necessary if possible to estimate the position. Let us not deceive ourselves in one obvious lesson. The hurry, competition, and keenness of modern life is causing a deterioration in the mental and manual product of the race. If any unprejudiced person will take the trouble to compare the press of to-day with that of twenty-five years ago, he will see exactly how the stately English has deteriorated into the smart sayings and the music-hall phraseology of the present day. Again a cry is in the air that English articles of commerce do not now stand pre-eminent in quality; rather have we allowed our hurry and money-grabbing proclivities to cause us to forget that quality is the first and essential attribute of good workmanship.

The point which the medical profession has to pay attention to is that all this rapidity of modern life is producing an amount of instability, gloom, and restlessness, which cries out for some morbid excitement by which it can be deadened. This morbid excitement stares us in the face in the literary, dramatic, political, and even in the religious spheres; and it is this abnormal and unhealthy craving which is one of the most important aspects of the present day. Our literature to a

great extent reeks with the discussion of problems which ought not to be discussed outside a lawyer's office or a doctor's consulting-room. The stage is bitten by Ibsenism until the old-fashioned play-goer with a sigh tells us that it was not so when he was a boy; that the plays of Lytton and Sheridan, Knowles and Tom Taylor, Robertson and Byron, did take a man into an atmosphere of purity and manliness and cheerfulness; that plays such as these men wrote did act as bracing tonics to a man's nervous system, and show him human beings with whom he could sympathize and whose actions he understood; but now we have a group of people who do not exist in real life, and prattle prurient balderdash with an effrontery which makes us shudder.

It is not as a critic alone that these remarks are made. Destruction is an easy process; construction is a difficult one. Our object would rather be to bring home to people's minds the immense danger which is hidden beneath this want of ease and contentment which is all round us. We lean too much upon the aid of others in these present days. Any man or woman must grasp the essential truth of development. They must take to heart the lesson that a man's destiny is in his own hands; that in a great measure he makes his own heaven or hell; that content comes only to those

who obey the laws of nature; and that unhappiness follows in the footsteps of indiscretion, ignorance, and transgression with just the same inevitable precision that an apple falls to the ground.

EARNESTNESS.

If we were to ask thoughtful men or women which attribute of man is the most essential to success, we should receive quite a variety of replies. Thackeray would lead us to believe that the attributes of a gentleman would be the best armour to fight the battle of life within any and every sphere. He says,—

> "Come wealth or want, come good or ill,
> Let young and old accept their part,
> And bow before the Awful Will,
> And bear it with an honest heart.
> Who misses or who wins the prize,
> Go, lose or conquer, as you can;
> But if you fall or if you rise,
> Be each, pray God, a Gentleman."

But the attributes of a gentleman embrace self-control and self-respect. These are two sovereign powers. Some would add courage, whilst others might say, discipline, perseverance, or humility; yet we might find any of these going hand-in-hand with a mean, petty character.

Hamerton says disinterestedness is the most essential moral attribute; and so it is, if we are going

to lead a purely intellectual life, for to have mental liberty is to be free indeed. The members of the medical profession come in daily contact with instances which prove how impossible it is for men or women (especially in the case of medical men) to be impartial judges of their own symptoms. I believe it is a legal maxim not to accept as trustworthy evidence given by an incriminated party, and the wise physician must accept with more than the proverbial grain of salt statements made by his patients respecting their own ailments. We should expect doctors, who represent a scientific class, whose intellect should be trained and their judgment sound, would be able to form a correct conclusion as to their own symptoms. Yet, as a practical fact, they recognize that it is impossible, however great may be their knowledge of their profession, to draw true conclusions as to the state of an organism which they are interested in so much as their own.

The difficulty we find in being intellectually disinterested must be obvious to us all. Glance at the political, religious, or artistic worlds, and what do we find? Why, a sharp line dividing the different schools, a line drawn by selfishness, ignorance, and narrowness. Imagine a man as intellectual as Sydney Smith saying, "That when he met a Methodist it made him sneeze;" and there is no

doubt but that we should find amongst the Nonconformists of England men who positively shudder when they pass a parish church, and are almost ready to faint at the sight of a Bishop.

Artists are seldom good critics, authors are not often generous to their brethren, and beauty will not admit a rival. They are not disinterested. It has often appeared strange to me that our dramatists and our poets do not find in such events as the death of General Gordon, the siege of Paris, the defence of Rorke's Drift, the heroism which Lord Charles Beresford displayed on two special occasions, and in thousands of other recent events of note, subjects for their pens. The truth probably lies in the fact that they are too near the events to treat them impartially.

Important as I believe unselfishness to be, I should select *earnestness* as the first essential of the attributes of man. The key note of character surely lies in steady, honest and good work. If a man knows what he has to do, he can almost always find the means to do it. The rapidity of modern life affects us all; we must rush on with the mad crowd, trampling on our best friends, burning up our energies at so great a rate, that in our impetuous haste we are apt to forget God, and nature, and health. We do not always grasp that the great secret of success in life is ear-

nestness. All great men are earnest men. The weak man creeps, for he cannot climb. An earnest man steadily, unflinchingly, and persistently follows his ideal; and he rarely follows it in vain. He will face all odds and still conquer, and yet with all his energy and determination he may be as gentle as a maiden of the middle ages. He can be kind to women and children. He can be as gentle to erring human nature as he can be strong in the instant that wrong is conquering. Sam Johnson lifted a poor destitute woman out of the gutter, and carried her home on his back; Boswell thought the exhibition ludicrous, but was it so? Did not Johnson thus show a kindly sympathy, tending to prove that he was not the rude, unmanly brute which some imagine him to have been?

I often think the number of earnest men and women is diminishing; yet again and again we find instances in which human nature will show its possibilities. The easy life which most of us now live, in a period when a man with means can command any luxury, and when all the energy of inventive genius is directed to the annihilation of time and space, when ease and comfort creep into every walk of life, this is not the era to develop the backbone of a nation, for out of conflicts has come character, out of difficulty has arisen courage,

out of opposition has come determination. Ease and luxury have caused a slackness in our natures, a want of stamina which our forefathers never suffered from, and Englishmen must remember that our splendid Empire has stretched its arms out over the face of the globe because the people have been earnest in their patriotism. They realized in the past the truth of Tennyson's magnificent morality when he wrote,—

> "I hold
> That it becomes no man to nurse despair,
> But in the teeth of clench'd antagonisms
> To follow up the worthies till he die."

He alluded to the death of General Gordon as a fitting subject for a Homer to write about, and in that death we have a wonderful example of earnestness. Nearly all men die well; but Gordon was actually face to face with death for many weary weeks. Did he falter? No. He who had offered his life for his country knew how to meet the treacherous Arab and the vacillating officials, for

> "He nothing common did, or mean'
> Upon that memorable scene."

He said, "I came here to save these men, women, and children, and will either do it or die," and he died the death of a hero, and for all time the dignity, the patience, the truthfulness, the calm courage which he showed under circumstances so

discouraging as were those days in Khartoum, will form a splendid example to hand down to our children and their children. "Great deeds never die," and the copying of examples such as Gordon's makes men great ; the country in which such men as he are born and brought up in is good to breathe in, and, as he taught us, good to die for.

THE PROMISES OF NATURE.

By nature we mean everything belonging to the organic and inorganic world which is the result of the forces we call natural laws. Let us imagine the first man and the first woman passing twenty-four hours on the face of the earth, without any knowledge of the sequence of day and night, without any knowledge of the functions of their own bodies, without any knowledge of mental or physical evil. How they must have rejoiced at the feeling of health and strength and joyousness which comes to us all at times, when we feel ourselves part of the air, and the sun, and the wind, and the earth, when we lie prone on the solid ground and recognize its firm support, when we feel the generous sunshine warm our bodies, when every inspiration we take is so much life, so much force, when we sigh for more physical enjoyment. At such times we get into the rhythm of the world, we seem almost conscious of the spinning round of the globe through space. I

have stood, on a beautiful starlit night, on a hill, and so strong has been this sense that I have almost fancied I heard the rush of the rapid movement through the air. Such moments come but seldom in our lives. I doubt whether some ever feel them. Custom and habit, and modern life, all have a tendency to push us away from nature, to tie and cramp and crush the most natural part of our lives.

Imagine the first inhabitants of the world revelling in the warm sunshine, enjoying the pleasant sensation of appeasing their hunger, or their thirst, feeling no world could be better or brighter. Then imagine their consternation as they watched the sun sink down in the west, how they would tremble at the beauty and the solemnity of the scene, and what a feeling of absolute loneliness and fear may have overtaken them during that mysterious passing from light to darkness. Surely they would think there is some mysterious power behind all this, and they must have whispered to each other, with trembling lips, "*What does it all mean?*" Then the silver moon might appear, and the twinkling stars. These would excite their further wonder and admiration, and seem some solace to their solitude. Then think of their returning joy as the sun rose again in the east, as nature again manifested itself, and

jocund day was ushered in with the songs of birds amidst a wealth of foliage and flowers. Then would they realize a Promise of Nature.

It is interesting to a medical man to look upon their ignorance from a medical or surgical point of view. Just imagine the consternation of the primeval man or woman if they inflicted a wound upon their flesh, how they must have been startled as the crimson blood spurted out of the wound, and how they would be seized with fear as the continued loss of blood produced that awful feeling of faintness, which is only a reflex of death itself; then, as they sank down and fell prostrate, the wound might stop bleeding, and gradually the edges would come together and in time heal. Then would they again realize the Promise of Nature from quite another point of view.

We are apt to forget that the human race was launched on the ocean of life without knowledge because they were without experience, and the school in which they have been taught has been that of nature. And a remarkably good school it is, too. At her desk you find a teacher who is not only always present, but always teaching on a uniform system. I grant you she is a somewhat harsh taskmaster. Nature has had many adjectives applied to her, such as kind, and loving, and just. Byron's expression—

"I made me friends of mountains'

or Wordsworth's axiom—

"Nature never did betray
The heart that loved her,"

are expressions which will not bear a critical analysis. That they did express a passing sentiment I verily believe, but nature *will* unfortunately betray the heart that loves her. Witness, for example, those awful deaths, which are far too common in mountainous districts, of those whose love of nature tempts them on with a fatal attraction. No, the truth is that nature is cruel, autocratic, and unforgiving.

There is scarcely an individual who has not experienced her cruelty. We have only to call to mind those tales of our coast where simple, brave fisher-folk, out in a lifeboat in a terrible sea to rescue their fellow-creatures, have been swamped, drowned, and flung up dead on the beach. Ask the widows and orphans if nature is kind. Or watch fever and death following in the wake of cold and hunger. Then ask whether natural laws are not stern and cruel. It is in the surroundings of death itself that we find the most severe trials. It requires much more than human nature to bow the head before the death of a little child, and say, with absolute sincerity, "It is all for the best"

There are thousands of other examples in which nature does act harshly. Yet we would not wish it otherwise, for she is only training and teaching us a great lesson. The teaching may pain us. It may make us gird and grumble, but if we are worth our salt we shall, to use a very expressive Americanism, "Face the music." It is not in the lap of luxury that great deeds are born. The cold bleak countries have given the finest specimens of our race. This country stands head and shoulders above all other nations in the courage of her sons, and in their endurance. These have sprung from a country with a varied climate, exposed to all the winds of heaven, and often intensely cold.

We have abundant evidence of the relentlessness of nature. A man laughs at the warnings which friends give him as to the ultimate results of fast living, or drinking, but nature never forgets. Any excess, any violation of her laws, and, sooner or later, she will step forward and present her bill to be paid, and paid in full.

The idle man or woman thinks to sit at the table of life and eat thereat without working, but soon the fading appetite, the weakening digestion, tell with no uncertain voice, that nature, who never forgives and never forgets anything, is annoyed and angry. There is evidently a profound truth in the old German proverb, "Work is our business,

success is God's." Nature will often pursue a man with resolute relentlessness in the moral as well as in the physical world. Guilty happiness never has existed and never will for any length of time.

Let us look at some attributes of Nature. Sir Joshua Reynolds argued that upon close examination all natural objects have their blemishes and defects, and he goes on to say that it is only the trained eye which has the power of discerning these blemishes. There is a truth in Sir Joshua's remarks, but it does not justify the gross caricatures of nature which are often presented to us by a certain school of artists. The medical man unfortunately has to gaze upon many a deformity of nature, such as a twisted foot or a bent spine; it is his work to see these defects and to try and remedy them. The artist would not select any deviation from his own ideal of beauty as a model for his picture. Custom, of course, has much to do with this ideal. I do not know that I am quite certain what a Grecian face is. Artists even differ in their conception of it. The point is that Greece being the cradle of art, we have naturally pitched upon this particular style of face as being the ideal one.

But supposing art to have sprung from a race with thick pouting lips and a pug nose, should we not have been worshipping pouting lips and pug

noses in this century? If we think for a moment we shall discover that every human being has his own conception of beauty, especially when the conception applies to a wife or a child. Yet it is difficult to imagine anyone who would not say the setting sun, a landscape bathed in light, or the calm evening time, or the softer moonlight, are not all beautiful. Painters have struggled in vain to carry to their canvas the beauty of nature. They cannot do it, because beauty is a force which we only know by its manifestations, as indeed it is with all other forces. Bacon said, "The best part of beauty is that which a picture cannot express." There is an enormous difference in the receptivity of individuals to this subtle charm of natural beauty. There are some men and some women whose lives are so artificial that they prefer a town to a country scene. I once sent a patient to Tunbridge Wells for three weeks. He rushed back to London at the end of three days, saying, "I can't stay there, it's all trees." There is one curious aspect of the question, which is somewhat difficult to get the truth about; it is this: Do those who live in the midst of natural scenery get to love nature more or less? Wordsworth would imply, in his well-known expression,—

A primrose by the river's brim
A yellow primrose was to him,
And it was nothing more,

that country people take no heed of the beauties of nature around them, yet I am sure I have known shepherds and farm labourers, whose lives have been spent amidst the green fields and under the sky of heaven, who are deeply impressed at times by this sense of beauty.

Doubtless there are others whose dull brains do not respond to the influence of any of the seasons. These, I am convinced, constitute the minority. Nature is always interesting, variable, and attractive, and no man or woman is to be envied who could sit on the cliffs of such a coast as North Devon without feeling the soothing power of the beautiful scenery.

The munificence of nature is obvious. There is more air, earth, and water than the living creatures on the face of it require; there is more food produced than can be eaten, there is more ground than can be cultivated. Her prodigality comes vividly before us if we take the following fact: Very few birds produce less than two young ones each year. While many have six, eight, or ten, four will certainly be below the average, and if we suppose that each pair produce young only four times in their life, that will also be below the average; that is, supposing them not to die either by violence or want of food. Yet at this rate how

tremendous would be the increase in a few years from a single pair? A simple calculation will show that in fifteen years each pair of birds would have increased to over ten millions, whereas we have no reason to believe that the number of birds of any country greatly increases in fifteen or even in a hundred and fifteen years. The dreadful death-rate is caused by the constant struggle for existence which goes on in nature, for nearly every bird, excluding perhaps the eagle, becomes food for other birds, as hawks and kites, or for animals, as wild cats or weasels, or perishes of cold and hunger during the sharp winter months. If we look at the vegetable kingdom we find the same prodigality; an oak tree will drop annually thousands of acorns; yet until an old tree falls not one of these thousands can grow up into an oak. They die at various stages of growth.

This very prodigality of nature has caused considerable discussion amongst men. They have naturally said, is it not a harsh law which brings into existence either animal or vegetable life which is doomed to perish? And before Darwin wrote his marvellous chapter on Natural Selection the law did seem unmeaningly cruel. Now a stream of light has been thrown on the subject, and we see clearly that this very struggle for existence brings out the vigour of life,

stimulates to exertion and braces up the energies. As we step into the study of humanity we find amongst the savage races of the world a wonderful freedom from the presence of the lame, the blind, and the halt. They, poor creatures, succumb in the struggle for existence, and the fittest only live through the incessant conflict with nature and man. Gradually may we see, as Christianity spreads its influence over the thoughts of men, that there was a recognition of the truth that there are other forms of evolution than the physical, that the cripple or the child stricken with consumption will often evolve in a family more affection, more of the Christian virtues, than all the teachings of all the sages. Our hospitals, our homes for incurables, our splendid achievements in medical and surgical work, are all monuments erected against this cruel law of the survival of the fittest. In some ways we do not trust Nature enough. From our very birth we are bandaged and dressed in a most absurd and restrictive manner. The long clothes of a little baby, the heavy embarrassing garments of adult life, all hinder and limit the action of the body. Then as age advances do we not find the same restriction, the same control, in every direction?

Nature teaches us three great lessons:—(1) Freedom with responsibility; (2) Obedience with

service; (3) Activity with gladness. No individual must approach Nature and expect to unlock the mysteries of her tabernacle unless he goes cap in hand and with a humble and inquiring spirit. She only yields her secrets to those who love and obey her. She expects her subjects to be her slaves, and they must recognize the fact that in gazing at the beauties of nature they only see one side of the shield, that behind and beneath all is the atmosphere of spiritual convictions which no one can weigh in the balance, or distil from a retort. Intellect and piety must shake hands. That they will do so I firmly believe, only we must lower the hedge of prejudice which separates them. It will be easier to shake hands then. There is so much we cannot at present understand, and the world is growing very weary of those thinkers who are everlastingly asking questions which no man can answer.

Nature promises abundantly to mankind. I know of nothing which makes one more hopeful as to the future of the race than the rapid strides which natural science has made during this century. The progress in electricity constitutes one of the most striking pictures in the history of the world. Steam and a thousand other inventions have all been yielded to those who have patiently studied the nature of the everlasting

forces, and have then utilized them for the benefit of man. Science, I am convinced, is only on the threshold of her life. Nature is rich in so many directions, and she is so generous, she will reward the earnest worker.

I cannot leave this part of my subject without alluding to the modern way of looking at the origin of life. Darwin, Huxley, and Tyndall, and many more, have found a solution of the riddle of the world in the creation by law, and I grant the premises seem fair and the conclusions logical. Step by step we may trace the progress of the drama of life, vegetable, animal, and human, but there are gaps always. We look at the face of Big Ben at a distance, and we see only a round face. As we approach nearer we see the hands, and gradually, as we get closer and closer, the hours stand out, then the minutes and seconds; and, if our senses were developed enough, we should divide the seconds into smaller portions of time. It is just so with the panorama of life. Animals and man stand side by side, but they never change places. Man stands out first and foremost, his intelligence, his language, his hands, his feet, his power over all the animal and vegetable kingdom place him on a pedestal which enables him to mould and influence the whole of nature for his own use. Go back as far as we like in the history of the human

race, and we find evidence of a moral sense, an appreciation of art, and a conception of a Supreme Being, which stamp man as occupying a distinct position from that of any other animal.

Let us look at other promises of nature, and, for the sake of convenience of description, I will select three fields of thought—the Moral, the Intellectual, and the Physical—and see whether we cannot find there specimens which show to us our own possibilities. We all of us know men and women whose moral force is so powerful that we positively feel its influence. In my profession we number some whose very presence in a sick-room throws a halo of hope and confidence around the patient. These are the men whom it does one good to be in the presence of. They seem to lift one into higher ground; they clear the air around them. Everyone recognizes their value. Arnold's boys could not tell him a lie, because Arnold believed them. It is interesting, too, to note that such men are the most humble we come in contact with. They are unconscious of their power. They go about the world doing good; they seem evil-proof. The history of mankind contains written on its pages the lives of many such. "It must be right to do right," was the motto of a very great doctor. Sydenham, Radcliffe, Jenner,

Brodie, Astley Cooper are all names which spring to our memory as we think of the doctors of the past whose lives have been simple-minded, industrious, and resolute. In the religious world we may mention the names of St. Augustine, Bede, St. Bernard of Clarvaux, Girolamo, Savonarola, John Wesley, and Father Damien as examples of high moral character, which was with them a living force. We may turn to the world of Art, Literature, and Politics, and find there names which bear no stain upon their escutcheons. The tendency of modern thought has been to make individuals who break the Ten Commandments irresponsible, because, forsooth, they are the victims of either an inherited taint, or the creatures of their environment. This teaching is bad, and the results must be bad. Nature hangs the great ones on the line and says, "Look at these 'promises' of mine. I give you examples of your possibilities. Don't whine about your fate, but manfully remember that no man or woman ever has worked up their moral nature to its full capacity."

In the intellectual world we meet with the most remarkable developments of the capacity for knowledge. Locke says, "Nobody knows the strength of his mind, and the force of steady and regular application, till he has tried. This is

certain, he that sets out upon weak legs will not only go farther, but go stronger too, than one who, with a vigorous constitution and firm limbs, only sits still." Take at random such men as Lord Bacon, Sir Isaac Newton, Adam Smith, Professor Porson, Samuel Taylor Coleridge, Macaulay, Jowett, as types of scholarly possibility. Of this cluster Newton seems to stand out. When Leibnitz was asked at the royal table at Berlin his opinion of Newton, he said, "Taking mathematicians from the beginning of the world to the time when Newton lived, what he had done was much the better half." Laplace said, alluding to the "Principia," "That work stands pre-eminent above all the other products of the human mind." Newton himself, with that great modesty of true genius, used to say that the only difference between his mind and the minds of others consisted solely in his having more patience. Remember, too, that his colossal intellect sprang from a race of Lincolnshire farmers, men whose lives are far too busy and eager to give much study to science, and out of such material we have a magnificent "Promise of Nature" given to the world. How the whole fabric of inherited genius, the law of environment, and the evolution of intelligence, crumbles before such a fact. No, the truth is that nature seems to revel in giving us

examples of greatness dug out of the most unlikely quarters. Shakespeare was the son of a haberdasher. I do not argue for a moment that all great men have been lowly born, but I do most emphatically state that nature snaps her fingers at those who would postulate the mental state of an unborn child. She, with a divine wilfulness, if I may so humbly express it, will at one time give us a Cæsar, born in the purple, whilst we have also a Wedgwood, the younger son of a potter, and a Watt, whose father was a block-maker and ship-chandler.

If we glance at the physical promises of nature, we shall find ample evidence of the truth of Solomon's words, "The glory of a young man is his strength." There is just now a tendency for men and women to rush to the cultivation of their muscular system. The tendency is a wise one, and I, for one, hail with satisfaction the appearance of women on the golf links and on the bicycle. We have recently had the remarkable instance of Dr. Grace's phenomenal cricket achievements, and Sandow has, so far as we know, lifted a greater weight than any man ever did before. The high jumps and the foot races are year by year giving us indications of the possibilities of the muscular system. Yet in spite of all these admitted facts there is a sad neglect

of the simple laws of health which every man and woman must instinctively know. No building can exist for long without a sound foundation; neither can any man or woman do good work in the world without healthy, strong flesh and blood. The necessity for the cultivation of the physical frame increases as the intellectual life of the people grows, for the simple reason that all brain work is done under unhealthy conditions. How often does the young enthusiastic student squander his life by devoting all his time and all his energies to the achievement of some task. I watched with sorrow the career of a senior wrangler, a man long since in his grave, who read and read until we could see his head grow bigger and his frame grow less. He won his prize, poor fellow, but afterwards nature stepped forward, or, in other words, reaction ensued, and his busy brain swung back into hopeless inactivity, and he spent the last part of his life guzzling beer in common alehouses. There is, of course, an abuse of the physical part of our frame, just as there is an abuse of the intellectual, but above both and ruling both is, or at least there ought to be, what Plato called the "Imperial mind." The physical energies, if cultivated alone, soon run riot, and it is for this reason that so many of the prominent professional athletes drop into drink and an early

death. The whole teaching of nature is variety, monotony is unknown in her realm.

> Variety alone give joy,
> The sweetest meats the soonest cloy.

It is the very condition of harmony itself. The moral, intellectual, and physical parts of our nature may be compared to a chain, linked as they are inseparably together. Strike from the chain whatever link you like, the chain is broken and the value of the whole is destroyed. "Men may try many things," said the wise old bard of Weimar, "only don't live at random." Living at random does not mean the checking of the natural enjoyment of our natural instincts, rather does it mean the letting any one side of our lives monopolize our time, our thoughts, or our energies.

Members of the medical profession will realize how true it is that those who pass through a severe illness are commonly the better for their struggle. In other words, sharp illness is like setting fire to a chimney, or like putting a ship into dock. The first clears away the soot, the latter gives time for repair. These thoughts need not be too much dwelt upon by the young. Children only see about three feet high up to the age of five years, and it is unwise to hold them up. They must develop gradually. There are many monstrosities in the world, and one of the most

objectionable is the precocious child, the little old-fashioned boy or girl who gazes in the fire and asks questions like Paul Dombey.

Let us glance at disease and see whether nature will not help us in our treament. He was a very wise physician who said, "Young men kill their patients, old men let them die." Not that we accept the satire as a truism, but lurking beneath it there is a great truth. Young doctors frequently have twenty pills for one pain; as life advances they reverse the process and have twenty pains for one pill. I remember, years ago, hearing Sir William Gull commence a lecture with these words, words which I have never forgotten:— "Gentlemen," Sir William said, "I don't ask you to read many books or to listen to many lectures, but I do entreat every one of you to go into the wards of Guy's Hospital and read there the works which disease has written for you and bound up in a human frame. Each volume is complete in itself. Each volume bears upon its pages a lesson which every one of you ought and must learn, and each volume is true from the beginning to the end. I can only conduct you through the wards and point out what you must learn by patient study. I will be your guide, but it is with your own ears, and your own mind, and your own hearts that you must learn and profit and sympathize."

If we glance over the history of medicine we shall see how the tendency to look upon all disease as an enemy which is to be frightened out of its citadel by something more obnoxious than itself, or killed by bleeding or blistering, is gradually passing away. Tincture of Time is largely used. It is the business of a physician to look upon all disease as nature's attempt to cure. Nature has given instances of men and women who have lived to an enormous age and at last have dropped into the grave as easily and as noiselessly as a leaf falls from a tree. When Lady Mary Churchill was ill with a pleurisy, the physicians in attendance said, "We must bleed and blister your ladyship, or you will die." She said, "I won't be bled, and I won't be blistered, and I won't die." She was not bled or blistered, neither did she die. The truth is that gradually we are beginning to look upon all the symptoms of a disease as an attempt of nature to get rid of that disease, and he is the best physician or surgeon who guides his patient according to the teachings of nature, for nature is stronger than art, or even science.

I do not wish it to be understood that I am advocating in every disease the method of treatment known as the expectant, in which the patient is told to go to bed, to stay in bed, and not to get up, because we have in nature some remedies

which are known as specifics. I need only mention quinine. This will put out the fire of a malarial fever with as much precision as water will quench a hot poker. And it is certainly within the range of practical thought that we may discover other remedies for other diseases as potential and as precise.

If we let our thoughts travel to the special aspirations of the race, we shall find Promises of Nature held out to us in every direction. Take one aspect: *Longevity*. Roughly speaking, and in spite of the croaking pessimists, who seldom mean what they say, men and women do wish to live as long as they possibly can. Clinging to life is a healthy, natural, and universal instinct. And it is only those whose mental perspective is wrong, or who are not within sight of the gates, who bray out their denunciations of life. Experience tells the truth, and vividly do we see men and women, racked with pain, and hopelessly ill, fighting for life. "A million of money for a moment of time" was a woman's wail, and it struck a true note. Nature gives us instances of lives which have spread over 140 years. And centenarians are not uncommon.

Then, if we look at examples of courage, we shall discover the same law at work in which nature gives us examples of men and women who

seem not to know how to play the poltroon. Take as an example the Jack Tar, who actually held the light in his right hand whilst the surgeon amputated his left, and afterwards plunged the stump into boiling pitch. Rough surgery this, but antiseptic at least, and the surgery of the ante-chloroform days.

"If I lead, follow me; if I fall, avenge me; if I flinch, kill me," were the words of General Gordon, and his whole life and death showed they were not idle words. Such examples of high courage always must excite our admiration. "Courage, sir. That makes man or woman look their goodliest." The ultimate advantage of approaching and looking frankly in the face any of the Promises of Nature is to make us all lead happier, healthier, and more useful lives. There is not a man or woman who ever has lived up to the possible level of either their moral, intellectual, or physical lives. Those who stand out in the history of the past are examples which will lift us into higher ground, if we will read their lives, and think their thoughts.

Humanity has never been satisfied with even the high examples of the great men and women of history, and we have, sprinkled over the pages of literature, ideal men and women who have become as familiar to us as those who have breathed and lived. Amongst these King Arthur seems to

stand out. This old legendary figure does embrace the great qualities which have built up this England of ours. Who can read the oath sworn by the "Tall knights that ranged about the throne," without catching at least something of the pure ring of the note struck? "I made them," said the king, "lay their hands in mine and swear—

> "To reverence the King as if he were
> Their conscience, and their conscience as their King,
> To teach the heathen and uphold Christ,
> To ride abroad redeeming human wrongs,
> To speak no slander, no, nor listen to it,
> To lead sweet lives in purest chastity."

Shakespeare has given us Brutus, a character historic it is true, but painted by Shakespeare, and idealized by him. It is true that a stain rests upon his name. I mean, of course, his association with those who assassinated Cæsar. Still, this character will bear looking at: it was unselfish, it was pure, it was patriotic, and it must have been a noble life which wrung from his enemies the eulogium that "This was the noblest Roman of them all."

The novelists of the past have all given to the world characters which we may take as examples of conduct. How one would like to spend a day with Tom Pinch, or to dine with Colonel Newcombe!

But we cannot conclude without looking back

two thousand years, to the time of our Great Example, in Whom all the blessed Promises of Nature are personified. We have no doubt often wondered how He spent the first thirty years of His life. The curtain is lifted very little for us until the public life of Jesus Christ began. Looking alone at the human side of the character, surely one may gather from it a great lesson—the lesson of obedience, and service, and courage. He was, indeed, the greatest "Promise of Nature" which the world has ever seen. His influence spread over the face of the earth like a living stream, a vital force, and this force is still the greatest power in the world.

THE SPRING OF THE YEAR.

JAMES RUSSELL LOWELL was walking with Tennyson some years ago, along that beautiful piece of cliff scenery which stretches from Freshwater to the Needles. It was in the month of April, the hour when the sun has just sunk below the horizon, when that restful, yet deceptive light, gives to everything a singularly indefinite look.

The two were walking silently along, when suddenly Tennyson sank down on his knees and plunged his face into the grass. Lowell was alarmed, and, thinking his friend was suffering from some sudden illness, asked hurriedly, "What is amiss?" Tennyson answered, between his sniffs, "Violets, man; down on your knees, smell them and thank God for them." And these two truly great and good men knelt on the grass on Faringford Down revelling in the first violets of spring.

The picture is so full of truth and meaning that it would form a fitting subject for the painter's

brush, or the poet's pen; and it illustrates that love of nature which all who can see and feel must have often experienced on the first evidence of spring. How we all long for that universal resurrection which comes round every year.

Is there any keener sense of delight than the one we feel after living for some months in a dark, dull city, when we find ourselves gazing at Nature putting on her spring attire? Is it any wonder that painter and poet have returned over and over again, and attempted, but never with complete success, to catch that spirit of renewed vigour and recurrent beauty which, year after year, places before every one of us that rich feast of colour and beauty which is our common heritage.

Even in London we may catch glimpses of the bursting of the buds. Our local authorities are endeavouring to grow trees in our large towns. The effort is a sanitary one, for their food is our poison, and it is the latent chemistry of all plants to take in carbonic acid gas and to give out oxygen. The dry soil of London is particularly adapted to the growth of such trees as the fig and the Virginia creeper. Perhaps we are never more impressed with the refreshing power of green foliage than when living in a large town. The greens look brighter than in the country, because they are set in a background of dull grey houses,

and because the contrast with the blackened trunks is more marked than is the case in the lichen-covered trunks of country trees. There is, too, an increased eye-hunger in town people for green, which is the most universal and the most restful of all colours. "Colours are the smiles of nature," as Leigh Hunt expresses it; and how infinitely variable they are, and how impossible to imitate.

I was standing in the middle of a grass field a few days ago, and I tried to get into my feeling something of the rhythm and pulse of life which was all around me. The first sweet spring air came intermittently puffing on my cheeks; the bright rays of the sun warmed everything around me; the faultless sky was as blue as the sea; and the fleecy clouds scuttled across the vault of heaven. The lark shot up in the sky as if he would never stop. He shot up, and up, as it were by a series of bounds, and then tumbled with mad delight down, in spiral fashion, to the earth again, all the time playing his own accompaniment. Blackbirds and thrushes and other birds were singing on branch and bough. Everything around me seemed influenced by some magic power, and compelled to give out the best it had. Wild nature performs quite as well alone as before others. She will grow her violet in the middle of an

untrodden wood with all the completeness which we see in a well-kept garden. The birds will sing just as sweetly if there is not a living soul to listen to them.

Spring teaches us many lessons. Personally, spring always brings before me the conception of growth. Everything is budding; everything is getting bigger; and it is just this tendency to growth which constitutes the special danger to health at this time of the year.

If a keen frost takes place in the night we shall find the newest part of a peach-tree the most perniciously influenced by that frost. The young buds will lie on the ground blighted in profusion, whilst the leaves and branches and trunk will escape.

The whole of the human race weigh more during the spring than any other season. Gradually, as the days lengthen, the weight of the body increases. The increase in weight is caused chiefly by a growth of what are called the epithelial structures, or, to put it plainly, the skin-lining membranes of the body, hair, teeth, and nails, and it is during this growth or budding that the organism is so singularly sensitive to cold, because these young structures become (like the buds on the trees) an easy prey to a low temperature.

The physician also knows that just when the warm weather is advancing people will cast off their winter clothing, cast it off long before the biting east wind (the assassin's wind of the Italians) has blown itself out. *Don't cast a clout till May is out* may be an old woman's maxin, but as Ben Jonson cogently remarked, *it's true.* The casting off of winter clothing accounts for many a catarrh or attack of rheumatism.

THE FALL OF THE LEAF.

THE regular succession of the seasons has become so much a matter of commonplace, that we are apt at times to overlook the fulfilment of a Divine promise. We rather tilt against the varied seasons; we grumble at our climate; we hear people say, "We never see an old-fashioned summer now," as if all summers are not old-fashioned. And there are grumblers who, in their shallow conceit, venture an opinion that the world is getting old, and cold, and worn out. Don't let us listen to such croakers.

The sun has risen and set with all his mighty grandeur ever since we have a history of time, or evidence of life. Seedtime and harvest come and go; and what we finite mortals, in our limited intellectual sphere, think to be changes in nature, are but the picturesque variety of a Divine plan, and is it not a piece of presumption for any man or woman to criticize the magnificent operations of nature?

There are others who see in this change of seasons a finger pointing to the grave. The rising sun conveys to them no sense of unfulfilled hope and possible action. They wail over a weeping willow, and morbidly gloat over a falling leaf. Every evening awakens up in their memory a thought of time passing away.

Perhaps of all the seasons of the year, autumn has called forth the most universal expression of sadness. But surely, if we try, we can get more out of the death of the summer than a feeling of depression. Only a week or so ago, I was driving through a rural district of England made dear to me by all the recollections of early days, and I confess I came back, after seeing the so-called melancholy autumn, without one tinge of sadness. On the contrary, the whole scene was so indescribably beautiful—the marvellous tints on the beech, the oak, and the ash ; the sharp but never jarring contrast of colour between the brown earth, the green fields, and the blue sky, all awoke in me a sense of joy. The birds seemed to be making the most of the last days of summer, and were grouping themselves together, as they always do at this period of the year, with that wild joy which is so pre-eminently their own. For my own part, I think this tendency to find in nature an object-lesson of the changeableness of human life is to be

deprecated. Old age is not a visitor we any of us welcome; he will poke in his hoary head and wrinkled face quite soon enough, and say, with his shrill voice, "You are growing old." We have no sympathy for those who always see the shroud over the shoulder, and would always act the wet blanket. We know cheery old men and women who rejoice in telling us how young they still feel, whose interest in life still continues as warm as ever. For all such let us be truly grateful. It is far better for our minds and our bodies if we knock the sting out of old age by meeting him with a cheerful countenance, clinging on to the tree of life as long as we possibly can, and die, as it were, facing the foe. I was watching a sycamore tree a short time since, and it was interesting to see how the leaves seem to cling on to the branch, and it was curious to notice that it was not those placed at the top of the tree which were shed first. They were exposed to the wind and storm, but they clung on and stood many a blast before they fell.

The autumn will teach us also this great lesson, that death is inevitable, but not to be looked at with a gloomy foreboding nor regarded as an ugly monster. There is a beauty about the autumn which is singularly its own. The leaves before dying seem to become saturated by a more intense colour than at any other time of the year; they

seem to say to us all, "My time is coming, but I won't show the white feather. I will put on my best dress, and I will die with joy, and pomp, and ceremony." And so they do. And although in human experience nothing can rob the death-chamber of its awful lesson, and no philosophy fill the empty chair, still all those who have stood by and seen death must have noticed how, the instant the spark has gone out, the face assumes a calmness, ay, frequently a happiness of look, which is most startling. More than this the dead often look younger by many years than before the end of life. It is unwise to dwell too much on death. It is apt to beget morbidness, introspection, and selfishness; and all those who have experience of disease will call to mind many instances in which people have been so saturated with the fear of death that they would sit feeling their own pulse and almost fainting over every flutter of the heart or pain running along a nerve. A good deal of this is the result of the freedom with which medical matters are discussed in the columns of the Press; quite young people come to us now with just sufficient knowledge to call a disordered stomach a *gastritis*, or a sore tongue a *stomatitis*. Seriously, this partial knowledge is a dangerous thing. We see a remarkable tendency which the public have to read over and to discover in the

daily bulletins of the Press referring to any illustrious patient, symptoms which exactly fit into their own sensations. When the late Emperor Frederick passed through his last and trying illness, the morbid mind of the public rushed to the larynx as truly as a magnet does to the North, and quite a number of impressionable individuals rushed off to their doctors with the firm conviction that they were the victims of the terrible disease which carried off that unusually heroic patient. For our own part we think it would be an enormous gain if the details of an illness were kept out of the papers. What good purpose can it serve any human being to know that the Emperor of Russia had a cough, and that the expectoration contained blood? He must have felt irritated if he knew that we in London devoured the details of his illness with so much gusto.

The old writers on medicine, such as Galen and Hippocrates, attached the greatest importance to the effect of autumn on the physical condition of the race. They argued that fevers and some of the skin eruptions were more common at the "fall off the leaf" than at any other period of the year. Experience, however, has shown that this is not true. We now know that each infectious disease has a tendency to reach its highest activity at a

certain period of the year. Thus although typhoid fever is more fatal during the month of October in both London and Berlin, diphtheria is not affected by either heat or cold, drought or rain. In England we have had epidemics of this disease which have lasted through the whole year. Measles may occur at any season of the year, but they are most fatal and most frequent in cold weather. The greater prevalence of scarlet fever in the fall of the year has been recognized since Sydenham's time. Yet we may dismiss from our minds any idea that the autumn fosters the development of what are now called the preventible diseases.

Notwithstanding this there are many reasons, for taking care of the old, the feeble, and the young at the time of year when the leaf gets old, and dies, and falls. Death cuts down more lives during very cold weather than at any other period. "Wine and fire for the old" is an ancient Greek proverb. If we consider for a moment, we shall realize how true it is that the laws of nature are universally at work. The same force which causes the tides is in operation when a tear falls down a cheek; and the same laws of degeneration and death which cause a leaf to fall, carry off many an old person. We have recently lost Oliver Wendell Holmes and Froude, two men well advanced in years, and as each autumn

rolls round we must expect to lose others whose race has extended over a long period of time. An analysis of the deaths advertised in the *Times* on November 2nd gives the following results :—There were twenty-two obituary notices, and these gave the extraordinary average of over fifty-eight years for each individual, and out of these twenty-two no fewer than four were over eighty, five over seventy, and seven over sixty years of age. It would be interesting to compare this death roll with a similar number during the other seasons of the year. But the analysis does go to show that just when we stand on the threshold of the winter, there are atmospheric conditions and natural laws at work which are apt to cut off those who have passed their sixtieth year.

It may be said that these remarks may have a tendency to cause people to become morbidly sensitive to their physical being. On the contrary, we were desirous to gather from the falling leaf a lesson of encouragement, and a spur to our better feelings ; but it surely cannot be either good teaching or rational conduct to ignore the fundamental laws of nature. It is no use arguing with a snowstorm, and assuredly it is no use shutting our eyes to its existence. A man would be worse than a fool if he did not try to avoid the dangers which surround him. Nature is a rigid disciplinarian.

She neither forgets nor forgives those who transgress her laws, but she gives us plenty of warnings when danger is ahead. The danger at this period of the year is *cold*, so it is necessary for those who begin to recognize the fact that they do not make such rich warm blood at sixty as at forty years of age, to wear more clothing, to put some more coals on the fire, and to have their food hot. How some of the poets gibe at winter! Emerson was a lover of the open air, but he writes :—

> The frost-king ties my fumbling feet,
> Sings in my ears, my hands are stones,
> Curdles the blood to the marble bones.

WINTER.

We seldom appreciate the blessings of warmth with so much keenness as we do in a country house in the middle of the winter, when we close round the cosy fire, draw together the curtains, and hear the wind roaring round the corner of the house. Then, indeed, we feel the sense of comfort, and it is a poor heart who does not, under such circumstances, let his mind wander to all those who are in danger or tribulation. For what a contrast there is between our easy enjoyment and the sailor, who, at the moment we are revelling in the heat and light, may be tossing hither and thither on the angry, restless, and cruel sea. For him, indeed, it is ceaseless vigilance, exposure, and constant peril. Or, again, the poor, who, with half filled stomachs, cold hands and feet, sit shivering round a few coals in a tiny grate, will pass across our vision. Then think of all those who from necessity are doing the essential work of fetching and carrying; since for the large army of railway, omnibus, and postal-service men there is

no respite; day in and day out they must face the elements.

Thoughts such as these must occur to any human being who is able to stretch his legs across a warm hearth during a winter night. Winter has always had a bad name. Let us just see what Shakespeare says about him. With the exception of the well-known quotation in "As You Like It," where he says "a lusty winter, frosty but kindly," we hear no good word for this time of the year. Rather does he gird at the cold, and we can trace a vein of irritability which is unusual with him in the following lines :—

> Never-resting time leads summer on
> To hideous winter, and confounds him there :
> Sap-checked with frost, and lusty leaves quite gone,
> Beauty o'ersnowed and bareness everywhere.

Nearly all the poets seem to hate winter, probably because their impressionable temperaments felt the cold keenly. But we have evidence also that excessive heat produced in some of them profound melancholy. This is what we should expect, for any sensitive organism is prostrated by unusual elevations or depressions of temperature. The surgeon cannot distinguish between a frost-bite and a burn. They both destroy tissue. Prospero says to Ariel :—

> To run upon the sharp wind of the north,
> To do me business in the veins of the earth
> When it is bak'd with frost.

Yet if we consider the effects of low temperatures as met with in the United Kingdom we shall find that healthy and vigorous organisms when well fed and clothed are positively, both mentally and bodily, more energetic in cold than in hot weather; they make richer blood, they pump it about better, and breathe with greater ease. Who has not enjoyed that elastic feeling which is experienced when we go for a walk in the country on a dry frosty day, a feeling which makes us seem younger and more active than we have done for many a day? But unfortunately the majority of people have what has been called "little health." Their vital force is low, their blood is cold, and it is amongst these that we find all the catarrhal and evil effects of a low temperature. But it is especially amongst the aged that we find many who die because they cannot keep up their vitality during very cold weather. The Registrar-General furnishes us with ample proof of this fact. The young are also victims to a low temperature, and of course the danger is always increased by an inadequate or an unwise diet.

The terrible consequences of a low diet were never more illustrated than amongst our troops in the Crimea, when, with only just enough food to maintain the integrity of the system at a time of rest and at ordinary temperatures, they were called

upon to make enormous exertions and to maintain their animal heat in the midst of severe cold. The result was that with an average force of 24,000 men the deaths from sickness alone, in the course of seven months, were at the rate of thirty-nine per cent., and in some cases it amounted to seventy-three. "Never before," says Colonel Tulloch, "is there a record of a British army having sustained so frightful a loss in so short a time." During the Peninsular War we only lost twelve per cent. of our troops from sickness during a whole year. We must not, however, attribute all the injurious effects of winter to a low temperature. Experience tells us that a low temperature associated with moisture is more pernicious than a low temperature alone ; and we must bear in mind that this combination without wind equals a London fog, which forces us to breathe an atmosphere impregnated with the products of imperfect combustion, aud causes death in a number of people whose breathing area is damaged or diminished.

If we glance over the history of humanity we shall discover that the rulers of the world have been those whose birth has been in a cold and trying climate. The Romans offer a remarkable exception to this rule. They sprang from the south, yet their armies crept over Europe with the

steady precision of a natural law, only to be hurled back when their manliness was sapped by luxury and laziness.

The love of Nature has grown rapidly with the development of art and science, and well does she repay those who will sit patiently at her feet and obey her imperious rule. Of all the seasons of the year winter will stand the least nonsense, the cold penetrates and pinches up every material, living or dead. It will stand no humbug, but it says very plainly and forcibly, to man and woman, "I am part of the scheme of creation; you may shrug your shoulders, or blow your nails like Shakespeare's shepherds, but unless you protect your bodies by warm clothing, and warm up your blood with good food, I shall shrivel you up as certainly as the sunshine expands the morning glory. It is of no use sitting by your fire-side from morning to night, or trying to escape me by flying south, because I shall punish you if you do. I won't argue with you, but if you will come out I will show you how I can round off the angles of the world with my white and pure snow, I will teach you how I can spike the winds of the world, I will show you a simple beauty which is all my own." And so she does. For there is no scene which possesses that indescribable beauty which we see in the country after a snow-storm. The

background of snow brings into such a clear outline the bare brown branches of the ash, the elm, and the beech, whilst the firs stand out like green salad on a white table-cloth. We never know how beautiful a sunset is until we see his Majesty go to bed on a winter's night.

Heaven knows that winter reaps a harvest of those who are sick and feeble and hungry; that the birds and the lower animals who live with him find him a hard master. Yet, bearing all this in mind, it is of no earthly use taking a gloomy view of winter. Coleridge wrote in 1800 to Wedgewood: "I am sitting by the fire in my great coat; it is most barbarously cold, and you, I fear, can protect yourself from it only by perpetual imprisonment." How like Coleridge! Far better if he had left off his opium and taken a swinging walk.

I have a distinct recollection of being exposed to an excessively low temperature on two occasions, and frankly do I admit its depressing effect upon me. Only last year it fell to my lot to drive eight miles along a country road in mid-winter with a biting wind and sleet beating into my face, an atmospheric condition which compels a man to shut his eyes. The journey was a slow one, and when I arrived at my destination I could have wept at the excruciating pain as the warm blood found its way into my frozen fingers. I could understand those

terrible tales of individuals who lie down in the snow to die, and how those tales would persist in paying my memory a visit in that drive I remember vividly as I write. But so strangely are we constituted, and by so involuntary a spark are our thoughts lit up, that I cheered myself by remembering the story of the boy whose father, a miserly man, was brought home dead from exposure to cold, and how the boy said, "Now we can burn as much wood as we like."

It is astonishing how an English peasant will, as country folks express it, "stand the cold." I have driven through villages when the thermometer has stood considerably below freezing point, and I have been impressed to see how few of the labourers wear any extra clothing in the winter. I have seen some of them with their shirt sleeves rolled up, and doing outdoor work, when the constant wind blew icy cold—yes, and many of these have been men of three score years and ten. It is well to remember such truths in these days of coddling.

Our English climate has called forth an enormous amount of adverse criticism; but there are few places on the face of the earth where a man can, during the year, spend so much time out of doors. The mistake is that we do not take advantage of this privilege.

Lusty citizens are not grown indoors, and there

is probably no condition of health, excluding acute diseases, which is not made better by exposing the body to the effects of the atmosphere at all the seasons of the year. The law of life is the law of evolution within the limitation of humanity, and an individual is able to increase his resistance to cold, as truly as he can increase his muscular strength by "use."

AL FRESCO.

I AM sitting alone on a striated rock which presents its area of the least resistance to the constant bombardment of the Atlantic waves. The notebook in which I scribble rests upon one of these rocks. Stretching out in front of me are three thousand miles of the salt, mysterious sea. In one direction I can see the coast of South Wales rising out of the water like a cloud, whilst on either side I am flanked by the varied, beautiful, and unapproachable rock scenery of the North Devon coast. There is a fringe of surf which separates the rocks from the water with as much delicacy and distinctness as the collar round a woman's throat. This fringe of surf seems to run up to and laugh at the big rocks which stand up in all their strength and solidity. No wonder the old legend has it that the ocean is a white cat which keeps pawing at the coast line. How beautiful, how grand, how fascinating it all is!

Above my head is a high and faultless sky, just

sufficiently broken up by fleecy clouds—known as sheep by country folks— floating lazily on in front of the wind, which blows on my face in irregular puffs from all the points of the compass.

I can hear the surging of the sea, and I can catch the sound of laughter which comes from some boys who are enjoying the splashing of the incoming waves, and learning the lesson which nature always teaches us—that if we transgress her laws she will punish us.

The punishment certainly in this case will fall more upon those whose business it is to dry these English boys' garments than upon the boys themselves. There is one lad clad in the singularly ugly costume of the Bluecoat schoolboy; he has all that love of danger, that sense of fun, that desire to eclipse his companions in deeds of sheer boisterous playfulness which make English lads what they are.

Surrounded as I am by nature uncontrolled and uncontrollable, it is discreet to throw one's whole being into her arms, to try—we can only try, I am afraid—to cast out of our minds the whole of the worries and anxieties of life, even to try and forget our own importance, to feel that faith in the works of the Creator which will enable us to close our eyes and to get into the rhythm of the wind, the tide, and the light; to be at one with these. Then

we shall know what physical life means. A man must believe in his own body, and he must desire so to strengthen that body, that it will enable him to do his work in the world without breaking or creaking at every strain. It is for this reason that I consider it a sacred duty for every human being to obey the laws of health, and by so doing strengthen that wonderful machine we call a human body.

We do not live as much as we might in the open air. There are many days in our summer months when English people might spend the whole of the day-time out of doors. Much of the Greek's conception of beauty owes its origin to the fact that in ancient Greece the inhabitants lived out of doors the greater part of the year. Their games, their plays, their contests were all enacted under the blue sky.

Apart from the immeasurable gain to our health from outdoor life we must estimate the value of the lessons which nature teaches us. I know of none which attract me more than to notice how prodigal she is in her patterns. Animal, vegetable, and mineral kingdoms are varied in a manner which we cannot be too grateful for. Variety is always restful, change is essential to us all. Notice the faces of those who live in the open air, such as sailors, farmers, labourers, or gamekeepers. See

how the forces of nature have chiselled them into a million varied types, until one wonders whether any two human beings have ever been, or ever will be, exactly alike. In large towns the pressure of custom, the friction of fashion, wears down the natural markings of humanity, and we often see a remarkable analogy between certain groups of individuals. We all remember how in the old comedy the question is asked: "What is to be the fashionable age this season?" and I read the other day that Venus de Milo waists were coming into fashion again.

Writing or reading out of doors is not an easy task. There is so much around one which keeps whispering in our ears, or springing up before the vision. Spread around you is a book which no man has ever read, a book which varies from hour to hour, ay, from minute to minute; a book which we cannot read the first page of, which we shall never finish, but which is full of abiding interest and importance, and never lies. That book is Nature. It has been given to very few to enter into her secrets, to catch and convey to others that spirit which makes the poet or the painter. Emerson so finely puts it, "Nature and books belong to the eyes that see them. It depends on the mood of the man whether he shall see the fine sunset or the fine poem."

MOONLIGHT.

I WAS on the North Devon coast when the moon was at its full. I stood on a rock with a sensitive woman by my side, and, gazing inland—the moon never sets over the Bristol Channel—the silver moon cast its soft light over hill and dale. The scene was one of calm magnificence. The hum of life was hushed, the still, clear, blue sky afforded a magnificent setting for the orb of night, the irregularities of the surface of the earth were rounded off, and just sufficiently obscured to take the vividness from all colours

Mellowed and mingling, yet distinctly seen.

There was just that soft blending of air and earth and water which has always appealed to me, which no painter can ever hope to put on canvas. For how can a man ever reproduce the effect seen on a moonlight night? No one ever has really painted such a scene in its fulness, or ever will. The effect upon me was soothing and restful. One felt there could scarcely be within a very short

distance misery and sickness and death. Such a night drew one's thoughts irresistibly away from the surface of the earth, and personally they aroused in me a feeling of joy and cheerfulness. I turned round to my impressionable comrade, and I could see even by that light that a pair of sensitive blue eyes were assuming a sad, wondering look. I confess I was puzzled why, and ventured to ask this question :—

"What effect does the moon produce on your spirits?" "Sadness," was the immediate response. How strange, I thought, that two human beings standing side by side should have such antagonistic feelings from the same conditions. And yet it is not strange; because we know from actual experience that one individual will be kept awake after taking opium, whilst another is sent into deep sleep. We know also that such common articles of diet as eggs, or veal, will in some cases produce all the symptoms of a poison. We know that the sight of blood will have such an effect upon many that they will fall down suddenly as if they had been shot. Need one wonder, then, that moonlight will lift up one individual whilst another is plunged into the valley of sadness?

This question of individuality or idiosyncrasy lies at the root of so much which puzzles us as we go through life. I once heard a great surgeon say

"that all men were equal at the point of the lancet." It would have been as reasonable to say that all men are equal before the point of the bayonet. No, the truth is that each man and each woman has his or her own temperament, the raw material with which they have to do their work in the world. And it is this temperament which gives rise to so much of the variety and charm of life. I do not doubt but that the effect of moonlight would be as varied as the effect of morphia upon different organisms. It is this fundamental difference of individuals which makes it impossible for any thinking man or woman to accept the doctrine of equality amongst men.

Walking by moonlight is certainly one of the most enjoyable exercises we ever take. The moon seems to supply the place of the sun, giving us just sufficient light to discover the forms of trees, and hills, and valleys, but not enough to bring into our field of vision any harsh, sharp outlines. The singular soft blue tone imparted to every object is one of the attractions of this hour; and there is certainly no time in the circuit of the earth which fills a man so full of the sense of gratitude and awe. Depend upon it, we none of us embrace the opportunity of sitting in the moonlight, or walking after sunset, as much as we ought and might do. A feeling of sadness creeps

over so many during the hours of night. Fear takes possession of others. Many are too weary to spend their time in walking at night. Still the broad teaching is that a walk on a moonlight night is a revelation. The darkness takes from us some of the keenness of vision, whilst the ear, as Shakespeare puts it,

> More quick of apprehension makes.

This is why so many individuals become painfully alert when it is dark. I expect there are very few persons who would not prefer a comrade or a candle if they were destined to pass a night in a lonely spot quite by themselves. Put as bold a face on it as we may, the truth is that darkness makes cowards of us all. As blunt Sam Jonson said, "I don't believe in ghosts, but I am afraid of them." So many a human being walks about after dark with the timidity of a hare, and many owe this timidity to the weird stories told them during childhood, or else to some practical joke. A great writer once said, "Fear always springs from ignorance." Nothing can be further from the truth. We all know the loud, brazen-tongued, ignorant person who shouts out that "he does not know what fear means." Such are not the men who face the cannon's mouth. Fear has many eyes, and it is for this reason that ignorance cannot be the parent of it.

There is a widespread belief that the insane are influenced by the moon, the word lunacy being from *Luna,* the moon. Certainly, such trustworthy authors as Pinel and Guislain have produced evidence which goes to prove that when the moon is at its full the insane are more agitated than when it is on the wane. The opinion of modern physicians is that the moon has no influence upon the moods of the mad. Actual observation ought to settle the question at once. The effect of the moon upon the growth of corn is believed in by many farmers and country folk at the present day, and, further, a moon-calf is a monster supposed to be produced by the influence of the moon. Moon-struck, or affected by the moon, is a condition which we do not recognize now. Dryden used the words "moon-struck madness." A man is said to be *moony* when he is not bright-witted.

If the influence of the moon is so potential an influence over the material world, is it not reasonable to think, nay, must it not follow as a truth, that the human race must be moved more or less by the attraction of the moon and the light which glances off on to our earth? That there is any special quality about moonshine is absurd; it is simply reflected light and heat, for we do get a certain amount of heat from moonshine.

Who does not remember that delightful chapter by Robert Southey where he tells us the story of the boy who was anxious to charm away some warts by stealing a piece of raw beef, with which he was to rub the warts, and afterwards buy the beef? The father of the boy Daniel said, "There can be no lawful charms that begin with stealing. I know a better way; wash your hands in moonshine caught in a silver basin." This was done, and the warts disappeared in three or four months. What more evidence need Sir Kenelm Digby require? It would be a pity to spoil such splendid faith by relating the number of charms which are said to effect the same cure.

ATHLETICS.

So long as sixteen young gentlemen will go through months of hard work, careful living, and energetic training, and when fit start on a bleak March day to row over four miles with their white teeth firmly set, "breathing determination," with their muscles strained to the utmost limit, and so long as the English people will scamper up to London and stand for hours to see such a contest, we may rest easy as to the nation's still embracing all that pluck and energy and will which have made us what we are. The modern monster, the solely intellectual man, may sneer and cynically say, "We do not wish our youths to be sent out of their University a mass of muscle." Far too much has been said against athleticism during the past few years. Experience tell us with no uncertain voice that the boy or young man who is always "at his books" is not one of those who in after life lead their fellow-men, rather is it true that those who can throw themselves with enthusiasm

into games are just those who can with equal earnestness grapple with the problems of life or the difficulties of the student. There are a number of men who sit in high places in their different professions who have shown the stuff of which they were made when they were competing with their fellow-students in the physical contests which occupy so much of the time and attention of every large school.

The schoolboy, with that natural instinct which belongs to youth, pays far more homage to the captain of his eleven than he will to the prizeboy of his year. In that ever-readable book, "Tom Brown's School Days," we catch the spirit of enthusiasm as we read the vivid descriptions of the games of cricket and football. We read over and over again, and always read them with pleasure. Human nature must kick a loose leg sometimes, and if we tie down our young men and young women to the student's stool, we shall reap what we sow, a copious crop of knowledge, but we shall not secure for the nation a healthy, vigorous, and moral race. There is pleasure in all unhindered life; there is a necessity for the unrestrained use of our physical frame. All nature tells us this. The mazy race of summer flies, the gambols of lambs, the canterings of colts, all point to the necessity for a free play of the limbs.

I was passing a Board-school in a populous part of London during some severe months as the boys were just leaving school, and it was most interesting to hear the wild shout which went up the moment they had their liberty ; their exuberant animal spirits seemed irrepressible. They not only screamed and yelled with wild delight, but they cuffed each other and rolled over one another in the streets, although many of the lads were blue with cold and but half-clad. The physiological necessity for physical freedom was making itself manifest. The London boy will bear a good deal of study, yet there is none more full of fun and frolic than he. Let us give him every encouragement. The time will come very shortly when necessity will tie him down, and he will soon enough lose his boyishness.

But there is another advantage in physical recreation. Nothing brings out more truly the will-power of an individual than the competition of games. Quite apart from the advantages which it offers for the strengthening of the frame is the enormous gain to any nation which has amongst its young men those who will fight for honour—the honour, it may be, of their schools—with as much vigour as a lion will for its whelps. No material gain accrues to any one of the sixteen young fellows who take part in the Oxford and

Cambridge boat-race, but it does require some sterling metal which will endure the strain of such a race for the simple pleasure of finding out who are the best men. From time to time we hear of critics who say our young men damage their organisms by this excessive effort. So far as I know, medical experience does not confirm the statement. Common sense will point to the golden rule of moderation, and will say, "Don't let any boy subject himself to such violent physical exercise as is embraced in rowing a race, without being convinced by medical examination that his breathing apparatus is a good one, and that his blood-pump is working with integrity. If this precaution is not taken, we shall hear from time to time of deaths occurring in the actual moment of physical effort." Such deaths are sad indeed, but sacrifices must be made, and it is nonsense to argue from particular instances. We can surely empty a bath without spilling the baby; in other words, a man may paddle about all day long and never turn a hair, or he may row himself black in the face.

Scientists have ascertained that in no way can a man accomplish as much muscular labour as in rowing, and certainly no form of exercise embraces so well the three great aims and objects of all recreation, namely, the use of the will, the muscles,

and an especial object to be attained. The three motives must act to the exclusion of all other processes when a man is rowing. Other forms of exercise do not sufficiently absorb an individual's attention so as to direct his thoughts entirely away from subjects which are fidgeting his brain. A man can walk or ride in an automatic manner, but when you take the oars in your hands then all your energy and your intelligence are concentrated on the propulsion of the boat. Oliver Wendell Holmes loved rowing, and, as he truly says, it is the nearest approach to flying that man has ever made, or perhaps ever will make.

These few remarks have but one object, which is to show the enormous gain it is to a nation when its young men will copy the Greeks, and develop their physical natures. Let us cheer the plucky English lads who will scramble, and tussle, and tumble about, for over an hour in the mud of mid-winter, to see which can kick a football over a horizontal bar the most times, or gain other points of the game which proclaim them victors. These are the men who can take care of themselves in any position into which they happen to drop. I once saw a young Englishman take off a delicate pair of gloves in Lincoln's Inn Fields, and give a sound and well-deserved thrashing to a loafing scoundrel who had insulted him, and I confess I

enjoyed the scene. And so did those who looked on. The well-merited thrashing tamed a skulking, cowardly brute far more thoroughly than a few days in prison would have done. And in case England should ever need men who will stand up before the shower of bullets or the fierce charge of cavalry, don't we all believe in our hearts that we should find those who would do so the most unflinchingly amongst the men who have fought the battle of athleticism, because no real sport can be found which does not contain in its nature a spice of danger, a spice of uncertainty, and a prize to be won. The great Duke was watching the boys at football under the elms of Eton, and he scarcely went too far when he said, "It was here that Waterloo was won."

Gymnastics do undoubtedly educate us in the truest and manliest sense of the word, for there is a manliness which is inseparable from virtue. We do not mean the gymnastics in the sense of such exploits as Blondin, and the thousands of nameless performers who alternately delight and horrify their eye-witnesses, but gymnastics in the sense of physical education. Ling, an enthusiastic Swede, long ago conceived the idea that physical movements properly carried out had a distinct curative value, and many are developing his conception.

RECREATION.

It was a great saying of Aristotle, "That the end of labour is to gain leisure." Few men continually plod on in their profession or trade without having in view the time when they will be able to hang up their harness and live at ease. To attain this object they will sacrifice health and enjoyment. We know of few more miserable spectacles than the men who will sit at their desk day after day and scoff at the idea of recreation, for when the time finally arrives for retiring from work they too often find their capacity for enjoyment has vanished, or their habits have become so confirmed that they are unable to tread the path of leisure.

How intensely human is Charles Lamb's essay on "The Superannuated Man," who for six and thirty years sat at a desk in Mincing Lane with one week's holiday during the summer, and one day each at Christmas and Easter. At last his sighed-for release came, owing to the magnanimity of his employers, Boldew, Merryweather, Bosanquet and Lacy. One feels that a firm like this could

afford to be generous, and we have Lamb's own words for it that they were. We should imagine that his first feeling after his release from his office stool would have been one of wild joy. Not a bit of it! for he had become such a creature of habit that in his own words, "For the first day or two I felt stunned, overwhelmed. I could only apprehend my felicity. I was too confused to taste it sincerely. I wandered about thinking I was happy and knowing that I was not. I was in the condition of a prisoner in the old Bastile, suddenly let loose after a forty years' confinement. I could scarce trust myself with myself. It was like passing out of Time into Eternity, for it is a bit of Eternity for a man to have his time all to himself." (Lamb was past fifty years of age at the time.) Soon, however, his love of books and pictures led him into new ways, and we have him declaring, "that a man can never have too much time to himself, nor too little to do."

Now let us take an example from the life of an individual whose career would be called in common phraseology "successful." He was one of those close-fisted men whose punctuality in business was only equalled by his keenness in the pursuit of making money. Week in, week out, he lived in his counting-house. At last neglected physiology knocked at his door, and he became suddenly

aware that his memory was failing him, and his business grasp growing more feeble; and on the advice of friends and his doctor he bought a plot of ground and built himself a home, the ugliest house I think I ever saw. His chief idea was to grow the largest apples in the parish, and have the best horses and cows and pigs. For a time he got through his days, always showing much restless irritability. But he was the most suspicious person I think I ever met. His energies were spent in seeing he was not robbed by those who worked for him. Quickly, however, the novelty of his new life wore off. He found no solace or interest in books, or pictures, or social intercourse, and one day in a storm of rage he actually bought back his business for more than he had sold it. When he returned to his old habits and mode of life he seemed like a child with a toy; but the flame flickered, and it was noticed by those around him that although he would chuckle over a good stroke of business, his capacity had grown less, and like so many miserly old people his gold had become his king. Money, money, money, was his sole thought. He would at times positively cry, and he was continually haunted by the fear of the workhouse. The final act in the miserable drama came suddenly and sharply, and a stroke of apoplexy killed him in forty-eight hours.

Oh, this magic metal, gold; how much does it make up of the history of the human race, how much will not men and women sacrifice for money! Who is it tells us of the miserly old man who clutched at the golden cross as it was held over his dying form? Doctor Johnson said he never knew an instance in which a large sum of money had been of any immediate advantage to its owner, save when a man whose life was in danger hired a band of mercenaries for his protection. Glance round and see how remarkably little a big fortune helps a man as he grows old. Far better is the manly independence of a moderate competence than to be flattered and fawned on by those who in the course of nature will be left behind, and are too often waiting for the dead man's riches. It is far better to cultivate those arts or pleasures which will interest us as we grow old. Do not let any single thought occupy the whole mental field. If we do, the brain must suffer. Experience shows us this, and the law spreads to the muscular movements as well as the mental. The scribe gets a partial paralysis of his over-used muscles, the telegraphist has the same experience; these will recover with rest and change; but when the highly organized nervous system is once damaged the recovery is never complete.

It must always be remembered that the brain

may be wrecked by a sudden mental shock, and damaged permanently. A young gentleman having £10,000 undisposed of placed it in the hands of his broker. The sum was invested in a stock which rose so rapidly in value that he was able to sell out and realize £60,000 for his £10,000. When the speculator was told of his success his mind lost its balance, and the poor fellow remained a lunatic for the rest of his days. His constant occupation was playing with his fingers, and continually repeating "sixty thousand," "sixty thousand," "sixty thousand." Probably the loss of his £10,000 would have had exactly the same effect.

Garrick's delineation of acute mental suffering when he played King Lear is said to have been his masterpiece. He said he owed his success to the following fact:—A man whilst playing with his only child at an open window accidentally let it fall upon the pavement beneath. The poor father remained at the window until the neighbours delivered the child into his arms a corpse. He instantly became insane, and passed the remainder of his days in going to the window, there playing in fancy with his child; then, appearing to drop it, he immediately burst into a flood of tears, and for awhile filled the house with his wild and unearthly shrieks. He then became calm, sat

down in a state of profound gloom, his eyes fixed for a time on one object, and his mind intensely absorbed in the contemplation of a fearful image. Garrick was often present at this heartrending scene of misery, and thus it was, he said, "I learned to imitate madness."

These illustrations will show us how slender is the thread which keeps the brain steady, and how this balance may be lost.

Modern life calls for so rapid a mode of life that if our calling deals with only one thought the nervous system must sooner or later break down, unless it is relieved by recreation. Now, this recreation must always be of such a kind as to direct our thoughts and absorb our attention. The city merchant will require to refresh his mind with horticulture or literature, and he must devote some period of his life to muscular activity. The professional man, especially the doctor, will be wise if he lets his higher intellectual centres lie fallow when he has his holiday, because his life contains so many varied interests that he calls into play his whole mental area. I don't think I ever met with a single doctor who expressed his desire to change his calling; his ambition is never satisfied; his interest is never tired; and he learns the golden truth, that "it is more blessed to give than to receive." There can be no greater earthly

pleasure than to stand beside a sick-bed and to fight a successful campaign against a deadly disease. Don't say such experience hardens men's hearts. Far from this being the case, we know leaders of medicine and surgery whose anxiety for their patients increases with advancing years. Addison used to startle the night nurses at Guy's Hospital by a visit which he would pay to the wards in the middle of the night, saying he could not sleep because he had forgotten to make one observation about some poor patient who was under his care. The secret satisfaction of knowing that we are trying to do good is balm indeed.

It appears to me that the lesson which we ought to learn is that of contrast, work alternating with play. While we are engaged in our daily work let us throw our whole soul into it; but, as soon as the hour of release comes, throw off our business thoughts. This can only be done by putting something into the place which these thoughts have occupied. Cheerful, easy, open conversation with both sexes, and with men whose vocations vary, is an excellent recreation. We know some men whose conversation braces one up as much as mountain air. On the contrary, we know others whose dreary drone tires us more than the hardest day's work. Escape such if you possibly can. But cultivate the society of those who you fee

supply deficiencies in your own character. Let your pleasures be shared by others; for all joy is intensified a hundredfold when it is shared by those we love, as assuredly all sorrow is softened when we lay it at the foot of sympathy. Above all let your pleasures approve themselves to your conscience, and to the consciences of your fellow men. Physiology and morality are two sisters who go hand in hand, and their laws are eternal and just. They tell us with the certainty of a natural law, that as we sow, so we shall also reap.

HOLIDAYS.

THE only way to enjoy a holiday is to earn it, and during this last few weeks it has been my good fortune to feel the revivifying and reinvigorating effect of rest and sea air. After a period of pretty tough work in London I awoke one morning with a sense of approaching pleasure, and a cheerful thought that in a few hours I should be away from all the strain which is inseparable from the calling of a busy medical man. The instinct of self-preservation, which we should all do well to obey, says with anything but an uncertain voice, "Don't you feel that it is time you put off your town garb, that you got into a fresh stream of life, and that you threw yourself into the arms of nature? Is it not true that of late you have felt that weary, aching emptiness about your head which indicates a tired brain, just as truly as an aching leg indicates fatigue? Have you not of late felt that your nerves have been on edge, that you have been peevish and snappy, and disposed

to take a dark view of your financial, moral, and bodily condition?" But of greater importance than any of these warnings are the restless nights, when a man will vow he has not slept forty winks, whilst perhaps the maximum of his wakefulness would be represented by thirty minutes. Still his sleep has been erratic, not the sweet, continuous sleep of a little child. All these symptoms show a man or a woman that change is necessary. And then the feeling of delight one experiences in putting on a tweed suit, and a soft hat. I have seen grave professional men going in a hansom to the station with a short pipe in their mouths!

Railway travelling is an exhausting process, and for this reason we are always, I think, disappointed on arriving at a fresh place. The quiet after London's hum makes you feel strange. You not unlikely have a headache, and if the journey has been a long one your body has become, as it were, a part of the train, and you feel that indescribable sensation of oscillation, which is nearly as disagreeable as sea-sickness. You, probably, have eaten some bad food, and eaten it in a hurry, and it has not been digested. This always makes a man irritable and dissatisfied with his surroundings. Railway refreshment rooms have caused as much misery by the mode of feeding which they are compelled to adopt, as have the anxieties which

from time to time cross the path of every individual. Then, again, your hotel or your lodgings never come quite up to your expectations. You miss your armchair, and you feel an affection for your own bed, which I hope is a feather one. But, after all, if you are a wise man, you will say to yourself, "One night's rest in the fresh air and I shall look on all my surroundings with the eye of a man who has swung back to health, or is on the highway thereto."

In twenty-four hours we seem to have left London far behind. We do not, or at least we ought not, to let our thoughts travel back to our work. And for this reason: if we are desirous to squeeze out of our holiday the largest amount of good it is essential that we should let our minds dwell upon fresh thoughts, or, in modern phraseology, let us use new centres and let the old weary ones rest—for change is rest. Action and reaction is the wise law in the heavens above and on the earth beneath. Fresh thoughts will take possession of our brain if we will open what Bunyan called the five gates of our bodies, and of all gates the eye-gate is the most at our service, while next in importance is the ear-gate. Go about amongst the inhabitants wherever you may be and talk to them about their work. Half an hour of such conversation will prove how much information we

can glean, and how easily it can be acquired. We Englishmen do not generally make congenial companions to those we casually meet. We travel at times many miles with a man and never exchange a word. We sit next a stranger at an hotel, and we sit beside him for days, and part without knowing his name or calling. This taciturnity has often been the subject of humorous allusions. One living wit has told us that if two Englishmen were cast on a desert island one would live at one corner and the other as far away as possible, and they would seldom meet. If two Irishmen were placed under similar conditions, they would probably see each other at frequent intervals, and most likely quarrel. But if two Scotchmen were unfortunate enough to be Crusoes, they would meet once a week and form a Caledonian Society. There is a basis of truth in this picture.

Country people, however, are not nearly so reserved as those who dwell in towns, and it is with the greatest ease that you can extract information from them. I travelled only seven miles with a farmer the other week, and in that short journey he told me more about the country we were passing through than I could have learnt by a week's residence there. He certainly introduced into his conversation incidents which had no

possible interest for any human being outside his own family. I could not grow enthusiastic over a grey mare which I had never seen, though it had taken the first prize at a small agricultural town. We make many acquaintances in this way. It may be the rural postman, the sailor at the coast-guard station, or some itinerant musician. Or perhaps you number some children among your new acquaintances, and it is all the better if it is so. You meet these people in a casual sort of way, and a pleasant conversation breaks that loneliness which is apt to make us moody and melancholy. You must not criticize too closely the language of your nondescript acquaintances, but you may weigh their common-sense, and you must admire their hardiness and their cheerfulness. Humble folk were amongst the best teachers of Scott, George Eliot, and even William Shakespeare. Unrestrained talk of this kind comes in the way of any man who leaves his home, and he is all the better for it. Englishmen are not willing enough to accept it, but it is one of the free gifts which, like the air we breathe and the water we drink, can be enjoyed by rich and by poor alike. But we have a far wider, deeper, and more instructive companion in nature. Her changing beauty, her constant activity, may become to any man or woman the most instructive as she is the most

interesting comrade. Byron felt this when he said, "I made me friends of mountains."

Nature, in her various phases, will excite in us all the moral attributes, but she is always serious in her teaching. The storm, the calm, the sunset, the wind, rain, hail, and snow never provoke mirth; the poets talk of the smiling landscape and the laughing wave, but to an ordinary mortal the landscape does not smile, and certainly the waves do not laugh. I don't know that I ever felt a deeper or sadder feeling than when I found myself in the Pass of Llanberis. Its high rugged mountains seemed to overawe me, and the constantly running water gave one a sense of pain. It is probably some feeling akin to these which gives rise to superstition, which is only a manifestation of fear, and it is very prevalent amongst those who live in wild mountainous districts. I read somewhere that there were no jokes until there was life, and certainly the higher the civilization the greater the fun. A North American Indian never laughs. Goethe felt the inflexibility of natural laws when he wrote:—"Nature has no feeling; the sun gives his light to good and bad alike, and the moon and stars shine out for the worst of men as for the best."

The art of holiday-making is not of universal applicability. Modern life is spent at such a

rapid rate that thousands of men and women have lost the power of strolling about the fields, or lying idly on a cliff. Watch the traveller who scuttles through a country, guide-book in hand, and ask whether such an one is deriving benefit from his change. He arrives in a town, after travelling a couple of hundred miles, swallows hurriedly a meal, and then rushes off to "*do the place*," as the phrase goes. That is not giving nature a chance. She won't be hurried; but only showers down her rich gifts of health on those who will calmly, patiently, and reverently sit at her feet. Then indeed she is kind. The wise man will not think that a holiday consists in travelling so many miles in a given time. The time has passed when seeing places included continual life in the fresh air, on the top of a coach, or on horseback, or on foot. Now we search in our A B C railway guide for the fastest train, we are shot through tunnels, over viaducts, and across beautiful country districts, at fifty miles an hour, in a noisy and stuffy railway carriage, and the result of this hurry, and anxiety, to do as many places as possible in a given time, is that many an individual returns to his work weary and discontented because he has not taken to heart the great lesson that—

> We may outrun
> By violent swiftness that which we run at,
> And lose by over-running. Know you not

> The fire that mounts the liquor till it runs o'er,
> In seeming to augment it, wastes it?

Finally, whether we seek health in the country by the sea or on the mountain, we benefit by the change from jangling artificial city life to the eternal realities of the physical world, clothed in the beautiful garb with which Nature covers the works of God.

EYES *versus* EARS.

THERE is no doubt an enormous increase in the number of illustrated periodicals of the day. A hundred years ago there was no such weekly paper as *The Illustrated London News*. Now we have not only a host of such, but we may actually see on our breakfast table an illustration of an event which occurred only the previous day. Our shop windows are filled with photographs, or other reproductions, of individuals, and of celebrated events, and the kodak has become a recognized part of the traveller's luggage.

Why is this so? We must go back to physiology for an answer, and remember that the brain of a new-born babe is as void of intelligence as is a pound of plumber's putty, which, as a matter of fact, it much resembles in its appearance. This brain mass would never become the highly organized, wonderful thinking organ were it not for the impressions which are conveyed to it by

means of the special senses. We can see a proof of this in the way children will play with a razor, or walk on a precipice. Experience only teaches them the painful possibilities of either. In point of fact, the instinct of taking nourishment seems to be the only gift of a new-born child, and it is most interesting to watch the strange, wondering, wandering eyes looking up to one with such absolute frankness and trust, saying to us as far as eyes can speak: "What does it all mean?" Many of the lower animals are far in front of the human race in their precocity. A chicken will step out of its shell and straightway commence scratching the ground and picking up grain. A rabbit is able to go out into the world and get its own living when two weeks old.

If the education of the brain were left entirely to nature we should easily be able to say which of the five senses contributed most towards that education. The sense of touch is used to a large extent by babies. You will see how they attempt to grasp objects, and having grasped them how they will fumble around them as if gathering a knowledge of their shape, and size and weight. A new-born child will clutch a finger with considerable tenacity, and this has been brought forward by the evolutionist as evidence of our origin from those animals whose wonderful

clinging powers we can see any day in the Zoological Gardens.

The sense of taste is surely and solely a conveyor of what appeals to the sensual portion of our beings. A man will eat a poisonous mushroom with just as much relish as a non-poisonous variety. In the lower animals it is quite a different matter. It is probably true that any animal in its wild and natural state does not eat of a poisonous plant. Domestication has blotted out or blunted this protective instinct, and we hear commonly of sheep being poisoned by eating the common yew, and many beasts have been killed by eating belladonna. With mankind the sense of taste is seldom used to determine any important question.

It is just the same with the sense of smell. Little knowledge of vital significance enters our consciousness through the nose. Even some of the most deadly sewer gases we do not detect. Whole families will go on breathing the mephitic gases week after week without being aware of any odour in the atmosphere around them. From an educational point of view we may therefore exclude touch, taste, and smell, and we are brought face to face with this question :—"*Do we convey to our brains more knowledge through the ears or through the eyes?*"

Let us take the following imaginary instance :—

Two children are born on the same day, one being blind and the other deaf, which do we think would pick up the most useful knowledge in the shortest time? and which would be most likely to become a useful citizen? I do not think there can be a doubt as to the answer. The sightless one would *never* attain an accurate grasp of thousands of objects in nature. The great lessons which we ought to learn from the sea and the sky and the hills would be to the blind a sealed book, and it does require enormous patience to teach such an one. I am not forgetting the wonderful results which the teaching in the blind schools gives to us. The marvellous manner in which a blind person will walk about a house or a street without running against any object is one of those wonderful adaptations which we are capable of. I have known a sightless man who could tell the colour of a horse by the feel of its coat, and I knew one also who could judge with remarkable accuracy the size of a room by the sound in it of his own voice. Homer and Milton are always alluded to as remarkable instances of mental development in the blind, but their want of sight was not congenital:—

> I can no more believe old Homer blind
> Than those who say the sun has never shined;
> The age wherein he lived was dark: but he
> Could not want sight who taught the world to see.

The late Mr. Fawcett lost his sight when young through being accidentally shot, but his dauntless courage enabled him by the help of his clever wife to climb into a high position in the senate, and he actually was a regular visitor to the boat-race, and I believe rode to hounds. Such instances we willingly point to as high examples of the power of the will to overcome physical difficulties.

The absolutely deaf are dumb in consequence of their deafness. Mr. White has introduced a system by which the dumb are taught lip service, and he certainly has enabled the victims of this dual misfortune to gather from the movements of the lips and the expression of the speaker the subject he is discussing, and even to repeat his exact words. Nevertheless it is true that the loss, or partial loss, of the sense of hearing causes an amount of obtuseness and discomfort out of all proportion to the degree of deafness. An individual who has disease of the internal ear not only experiences the disadvantage of not hearing, but so nicely are our special senses balanced and helpmates to each other that the sufferer is invariably giddy as well as deaf.

We shall illustrate the comparative importance of the eye and ear as media for the attainment of information if we reflect on what occurs when we visit the National Gallery. Anyone with an

average amount of intelligence, good sight, and the power of observation, will in a few hours take in a remembrance of many of the pictures. The knowledge will not be accurate or technical, but it may safely be admitted that we could not by either a written or oral description have gathered a tenth part of the information even in a much longer time than was spent in seeing the pictures. It is for this reason that there is an enormous increase in the amount of pictorial aid which is brought to carry instruction to the young in our Board-schools. It would be well, indeed, if this easy way of learning were increased still more. We see an application of the same truth in the lasting and vivid impression which we carry away with us of a place which we have visited. It is doubtful whether any amount of written description ever gives us a lasting mental picture. It is for this reason that books containing long and tedious accounts of places will never be very popular, unless illustrated. Let anyone try to convey by means of words a recognizable description of an individual and he will at once discover that the painter's brush or the photographer's camera will convey the information much more easily and accurately than he can ever do by means of words. It is necessary to remember that all written matter must pass into

the sphere of our intelligence through the eyes unless we have a reader.

A well-known circus proprieter, more celebrated for his frankness than his orthography, was present on one occasion when they were rehearsing the ever-fascinating story of Dick Turpin. He sat patiently listening to the dialogue for some time, but becoming impatient, shouted out, "Cut the cackle, let's get to the hosses." He showed in this speech a true sense of what his audience would most appreciate.

A visit to the theatre will enable us to notice how long, drawn out speeches or soliloquies will tire an audience, for they will yawn and stare about when they are being delivered; but the instant the hero draws his sword or becomes physically dramatic every spectator is at attention. No man recognized this more keenly than Shakespeare.

Some of our special senses appear to be of transient use to us. Let anyone endeavour to recall the smell of a rose and he will find it impossible to do so, but if he asks his sight sense to bring back the image of the flower he is able with decision and rapidity to accomplish his wish. So it is with the sense of taste. It is very easy to remember the shape and colour of an orange, but it is impossible with the same definiteness and

accuracy to say we remember the taste of the fruit.

If we show to a collection of individuals, young and old, the death of Nelson, few will ever forget it; but if we were to attempt to convey a description of the end of that hero by reading even Southey's magnificent description of the same we should find but little result.

Word painting is, of course, useful, nay, it is an essential aid to teachers; but it will be admitted that good pictorial illustrations convey impressions more easily, more rapidly, and certainly with greater permanency than the most carefully worded written description.

As age advances with us all we must live our pleasures over again, and he is a fool who does not at times let his mind dwell on the past, and I think a healthy mind will find that it is not the losses and disappointments of life which occupy the field; rather will our thoughts travel back to those scenes which have afforded us the greatest pleasure, and I think we may say, have been the most innocent. The lost parent or brother or lover will flit across the scene at times, and if they do we shall find a halo of pleasure even in the sad contemplation. I was reading Thackeray's "Cane-bottom'd Chair" only a few nights ago, and could feel how every word of that exquisite little poem

bubbled up from a big man's heart. For how graphically he describes his chamber; one can almost fancy him sitting in the fog made "of rich Latakie." We can see the chair "with a creaking old back and twisted old feet," and we can imagine the girl he describes, and evidently loved, sitting there (she must have been a pure girl or Thackeray could not have loved her). None other than a poet could have poured out these lines to that chair and that memory :—

> When the candles burn low, and the company's gone,
> In the silence of night as I sit here alone.
> I sit here alone, but we yet are a pair—
> My Fanny I see in my cane-bottom'd chair,
> She comes from the past and revisits my room,
> She looks as she then did, all beauty and bloom.
> So smiling, so tender, so fresh, and so fair,
> And yonder she sits in my cane-bottom'd chair.

I quote this to show how we remember all things by conjuring up a vision. The literary instinct of our greatest novelist painted his picture easily, simply, and touchingly, without any shade of sadness or sorrow. An artist could put the whole scene on canvas. And how we all recognize a bit of true work when it touches our sympathy. I was fortunate enough on one occasion to hear this poem recited by a well-known dramatic author, and it was most interesting to notice how men were hushed into silence by the simple pathos of the lines. Although it was past midnight when

the recitation was given there was not a man present who did not feel that throat fulness which we experience when truly moved. If there were one such, we do not envy him.

Sight, taken alone, is doubtless the most valuable of our natural faculties. To the lower animals and to the savage man it is of an importance which it is not easy to exaggerate; and as civilization advances, and with it the multiplication of books and pictures and other works of art, the value of good vision is increased a hundredfold. It is gratifying, then, that in no branch of the art of healing do we find more accurate and useful knowledge than in that of ophthalmic surgery. In England the number of blind is less than in any other part of the globe. In Egypt, China, and India the proportion is very large indeed.

The art of removing cataract is one of the greatest triumphs of modern surgery, and is the means of restoring sight to thousands who would otherwise be blind. Surgeons used formerly to "couch" for cataract, which means that the opaque lens was simply pushed out of its position into the deeper portions of the eye. This was only a clumsy and inadequate process. Sometimes an accident will effect this displacement. It has occurred with the victims of the disease that a blow has displaced the cataract, and sight has

suddenly been restored. The surgeon, however, now removes the cataract with a precision and rapidity which is one of the most beautiful of all the operations of surgery.

The effect of a sudden restoration of sight is very puzzling at first to the person operated on. In 1728 Cheselden, who was the first surgeon in England to couch for cataract, operated on a young gentleman who was born with a cataract in each eye. When the patient first saw, he was so far from making any judgment about distance that he thought all objects touched his eyes, as he expressed it; but what he found the most perplexing was the use of a pair of scissors. Before the restoration of his sight he was able to cut out many designs; but it was months before he could manipulate them when he acted through the sense of sight as well as feeling. He would learn and unlearn a thousand things a day. One in particular is worth relating. Having forgotten which was the cat and which the dog, he was ashamed to ask, but catching the cat (which he knew by touch), he was observed to look at her steadfastly and then, shutting his eyes and using his sense of touch, by rubbing the back of the animal, he said gleefully: "So, Puss, I know you now."

I know of nothing which impresses me so much with the idea of the possibilities of man as the

marvellous development of the other senses in cases of blindness. A blind cattle-dealer in one of our counties used to buy with remarkable precision thousands of beasts every year, simply by measuring their backs and sides with a stick. We are told that almost all the senses are possessed by some animal in greater perfection than by man. The eagle sees further; the deer hears more acutely; the dog smells more keenly; the cat feels more sensitively; and many animals trust to their sense of taste much more than human beings.

But man possesses pre-eminently the five senses in their greatest excellence when grouped. An American-Indian has a more acute sight than a European; and he can hear further than an Englishman. The truth is that modern life does not necessitate our dependence upon our special senses; and they gradually become "more mediocre," as Sydney Smith puts it.

A Choctaw would run from here to Oxford without stopping. We go in a mail coach or a train; and the time that the savage has been employed in learning to run so far, we have employed in something else. It would not only be useless for us to run like a Choctaw, but foolish and disgraceful. We might safely add also that it would be impossible.

The late Professor Saunderson of Cambridge

was blind from one year old, but he could distinguish the Roman medals in the museum with exactness. When any object passed before his face, he not only knew it, but he guessed its size with considerable accuracy. When taking exercise he knew when he passed by a wall, or a house, or a tree. He could, from the sound of voices in a room, estimate with the most remarkable accuracy the size of the room.

By far the most remarkable instance of the capacity of a blind man was that of John Metcalf, who became blind at a very early age. He passed the earlier part of his life as a carter, and, strange as it may appear, as a guide. But what is more startling is the fact that he became a projector of roadways in mountainous parts. His plans and designs were done in his own way, and in a way which he could not convey to others. So proficient did he become that nearly the whole of the highways over the Peak in Derbyshire owe their present condition to the blind genius, John Metcalf.

There are three principal channels by means of which we gather knowledge, namely, the eyes, ears, and hands. Of these by far the most important is the sense of sight. Shakespeare touches one of his keenest notes of pathos in the scene where Arthur pleads to Hubert for his sight; whilst he depicts

with a true poetic sense the leaning of the statesman Gloster for his guidance on mad Tom. Milton over and over again refers to his blindness in times of sorrow, but Milton was too much of a man to sit down and bewail his loss, for we find him writing to his friend Cyriac: "I argue not against Heaven's hand or will, nor bate a jot of life or hope, but still bear up and steer right onward." Thousands of blind men and women have taken heart by his high example.

Just imagine the condition of a blind nation. See how impossible it would be to compete in the conflict of life. Doubtless it is true that life in large towns, which does not need our using our eyes for long vision, has caused an enormous increase in the number of short-sighted persons; it is a marked feature of our young people, and is certified by the number who now wear spectacles. We cannot be too careful of the eye, and it is wise, whenever failure occurs in this organ, to consult a doctor.

THE SENSES—FIVE OR MORE?

AN Irish student was once under examination, and was asked the following question: "How many senses have we?" "Six," said the Celt. "Tell me what they are," said the examiner. "Sight sense, hearing sense, taste sense, smelling sense, feeling sense, and common sense," was the bright reply. Of course the answer was wrong, but we are gradually beginning to believe that man is endowed with more than five senses. Dr. Thomas Reid, Professor of Moral Philosophy in the University of Glasgow, pointed out many years ago that there was a broad distinction between the sense of roughness or of resistance which was possessed by the hand, and the sense of heat, and although Reid never developed the idea, others have argued with much force for the possession of a sense which may be called the muscular. A good illustration of it is the following: If I lift a jug in a dark room, I am able to say whether it is full or empty, without

employing any one of the five recognized senses. It is also possible that man may be in the possession of a sense which enables him to appreciate waves of force wafted across distances. Names are not of any importance so long as we know exactly what we mean when we use them, and there can be no reason why we should not call this sense a psychic sense. Before going further I should like to crush any idea that I am hinting or suggesting any support to the table-turning spiritualism, mesmerism, or clairvoyance. These are tricks, and tricks only, and have long ago been stripped of their mysticism. No human being will ever be able to either reveal the past or tear the veil from the future. Humanity will always be attracted by the inscrutable ; but to believe that antecedent events of a person's life, the secrets of his heart known to him alone, can be told by any person skilled in the anatomical lines in the palm of the hand, or the shuffling of a pack of cards, is a piece of mediæval superstition which ought to be dealt with at the Old Bailey. It must be astounding to any reflective mind to think that in this time of day, we have palmistry, fortune-telling, and spiritualism, and occult phenomena believed in, not only by the poor servant girl and the ignorant ploughboy, but by educated and cultivated people.

What is true is that well authenticated instances are on record in which two individuals have felt a distinct mental impression when at a considerable distance from each other. If we trace this influence to its source, we shall find we recognize it under many common names. For instance we say, "A man has a strong personality," or we say, "He has force of character," or "He has an honest face." These current expressions indicate the fundamental truth that a man has his own moral and mental atmosphere. Genius carries its own trade mark, so much so that the most ignorant persons may distinguish a great artist when they see one. He is surrounded by his own personality. We go to the theatre and for a time our attention is not fixed, we listen in a loose way, when suddenly, on the stage comes the true artist, and in an instant you instinctively feel that the whole dramatic action has gained something. He or she will throw across the footlights a subtle force which holds you spellbound. And what is most remarkable is the fact that when the real gold is there all alike are influenced. This is the secret power which the great orator or preacher possesses. I think all would admit that the almost superhuman power which Alexander, Napoleon, Nelson, or Gordon exercised over their followers was more due to this

invisible, intangible *force* than to any other quality.

Let us look at a more common and everyday experience, and see what we discover. This must have happened to every adult person. You are walking in the street when you feel that someone is behind you, looking at you, and if you turn your head you find you are right. Those who live together as man and wife are often conscious of this wave of communication.

We might add many more instances of this unintelligible influence. But we cannot omit an allusion to the instincts of the lower animals. It is astounding to see how a number of crows will become conscious of the presence of a man with a gun. I have watched them for hours, and I am sure it has not always been due to sentinels' alarms. I confess it frequently has appeared so.

I need only refer to the marvellous instinct which brings back a swallow across the sea to the same spot in some remote English village, there to build its nest and rear its young. The parents who had brought up a brood of young swallows may have been killed as soon as they were able to fly. These young ones have migrated, yet they return with the precision of a law of nature to their ancestral home, and there build their nest.

Let us see what physical science, or what the

Scotch people call "Natural Philosophy," has to say to us. Let us ask whether she will tell us anything which will put us in the path of research. Nature will only reveal her secrets to those who are patient and obedient. If a piece of copper or silver is let fall between the poles of a magnet, it will fall slowly as if it were going through butter. This experiment was carried out by Lord Crawford and Mr. Varley. Now, is it impossible to believe that which would influence a piece of metal must have some effect upon a piece of humanity? So from this experiment alone we should logically come to the conclusion that we are able to estimate forces which none of our five senses recognize. I think it would be untrue to say that this sense is possessed by all alike, because the temperaments of the race vary as much as do razors. There are many sensitive human beings who are laid prostrate by a noise, a smell, a sight, what thousands would pass by unnoticed. These impressionable human beings make the poet, the painter, or the musician. They hear a voice we cannot hear. They know what Tennyson meant when he wrote,—

> Vex not the poet's mind
> With thy shallow wit.
> Vex not the poet's mind,
> Thou canst not fathom it.

We may compare the brain to a central tele-

graphic station. If the station is an important centre, the wires—or nerves, if you like to call them so—will stretch over a good deal of the globe. They could be made to embrace every foot of its surface; and these nerves will convey to this centre the sensations of those who are at the ends of those wires. But if the station is an unimportant one, the communication will only be over a short distance. It is just so with an individual whose mental capacity, or artistic power, is above the average. Their sensations are so alert that they feel many influences which to the ordinary mortal have no meaning. Their imagination is so riotous that they will span the round world. They will drag into their pages subtle influences which to them are real and often painful. I have been told by a distinguished living dramatic author that his *dramatis personæ* become so real to him that they actually will not do what he wishes them to do for the development of his plot. Dickens used to think he heard his characters speak. How can we ever hope to grasp any idea of the colossal imagination of Shakespeare? His nervous system was so sympathetic, so ubiquitous, that it embraced almost every phase of human life, and felt and analyzed every passion of the human heart. Unhappily for those who possess this mental potentiality,

they must feel the sting of pain and shock of sorrow with as much intensity as they appreciate the light of love or the irritation of hatred. This is why genius is so often wretched and pessimistic. This is why great men and great women suffer so much pain. Their palpitating organisms cannot bear the play of conflict, and the test of disappointment, without betraying it. The fever of the world is too strong for them, and, as Wordsworth says,—

> The good die first,
> And they whose hearts are dry as summer dust
> Burn to the socket.

RAILWAY TRAVELLING.

IT must frequently puzzle individuals to know how it is that they experience a sense of fatigue during and after a railway journey, yet such fatigue is always experienced. We take a first-class ticket, and we sit down in a well-cushioned seat, we are shot through tunnels and over viaducts without any conscious effort on our own part, and still we say at the end of the journey, "I feel tired."

The question of concussion or shaking up of the body is to be taken into consideration; the rougher structures of our bodies do not suffer much from the oscillation of a train, but our fragile and highly organized nervous system pays the penalty, and we often hear people say after a railway journey, "My head aches," or "My back is so tired"; and is it not true that we all find it difficult to read any stiff literature, or to follow out a line of consecutive and close thinking, when going by rail? I suspect this is one reason why we find so few people talk whilst flying through the country in an

express train ; the train is being shaken like milk in a bottle, and this shaking makes thinking a difficult and tiresome process.

The reason we wish to bring forward this question is because railway travelling is now the chief way by which the inhabitants of the civilized world move from place to place. And what a wonderful thought it is to reflect that night and day we have the country penetrated far and wide by these iron machines flying through the air with a velocity often of a mile a minute! There are few more impressive sights than to see an express train dash over a bridge on a dark night. What a triumph it is of mind over matter! how the busy brain of man must have thought and thought to enable him to so use up the materials of the world, so to conquer the mighty forces of nature, so to make the coal yield up its bottled energy! We stand aghast as we see the mass of wood and iron laden rush past with human souls. It is a magnificent monument to man's brains.

But is there not another side to the picture? Are we sure that human beings can stand this oscillating hurry? Do we not find a mass of individuals suffering from sleeplessness, depression, and irritability, far exceeding anything known to our ancestors? I confess that when I find myself amongst the male rural population, who are scarcely

ever in a train, I am impressed by their steadiness of nerve, and their almost faultless physical health.

Of course it would be absurd to attribute all the varied manifestations which we know as nervous to railway travelling. Countless causes are at work in almost all parts of the globe. Competition is far keener now than it ever was before. The telegraph and telephone, the rapid transit of letters, all crowd more work into a man's day than was possible a few years back, and many of us do our work in an atmosphere which is dull and grey and deficient in ozone. But we are convinced that many whose lives are spent in rushing from one part of the world to another in express trains pay the penalty, and frequently a very heavy penalty it is.

Individuals vary a great deal in the amount of fatigue which they experience after railway travelling; the condition of health and the temperament of the organism account for a good deal of this difference; still it is impossible to believe that any man or woman can accomplish regular railway travelling without their health deteriorating. And we can remember many instances in which the general nervous state has improved when the daily journey to and from town has been discontinued.

This leads us to an important question affecting

that large class of City men who prefer to live in the country and travel backwards and forwards every day. "Does residence in the country, combined with a train journey twelve times a week, suit a man's physical and mental health better than a walk to his work, or a ride in a carriage, cab, or omnibus?" The question is an important one, and a difficult one to answer, but we must not flinch from difficult questions. The answer is probably contained in the following statement:—

So far as the individuals who perform the transit is concerned, there is a loss of vitality resulting from the actual journey, but the immense gain obtained by living away from the noise and dirt, and by breathing the fresh air and living in the light, compensates them—that is, unless they are bad travellers.

I should be quite prepared to hear two men express diametrically opposite opinions on the subject. I have known calm persons whose pulse beats like the tick of a clock, whose nerves are never on edge, who never miss a train, but who go through life with the regular calm of the tide. I have known such persons who do not suffer from the fact that they must catch a certain train at a certain hour; they would go to their business in a balloon without excitement. There are others who, from constitutional conditions, do feel the

tension of punctuality, to whom it is an irksome and trying process to have to perform the same journey day after day. The dull, dreary monotony tries such persons exceedingly. The practical conclusion is that each one of us must try the experiment for himself. Certainly it is true that as civilization advances our towns grow bigger and bigger. It is impossible for the work of London to be done by those who live within her walls, for the simple reason there is not room enough. We hail with gladness the workmen's cheap trains, because they will empty our crowded courts and unhealthy streets, and enable a man to bring up his family in an environment which can produce healthy children.

It would be deeply interesting to have accurate statistics of the health and lives of engine-drivers and guards. These useful public servants travel thousands of miles during each year ; they must have all their faculties wide awake, and it would be curious to know the precise effect their work has upon them. Commercial travellers would also afford us some basis for estimating the effect of railway travelling. The medical profession are quite alert to this subject, and some of our most acute observers have recognized the importance of the question. Sir William Gull used to say that six hours' travelling exhausted him more than a

week of his ordinary professional work in London; and I have heard others corroborate his experience.

There is one aspect of the question which demands attention. It is the question of construction of lines and carriages. There are some of our railway systems in which you may ride without experiencing any great amount of shaking, whilst on other tracks you are jostled from side to side like a cork on the sea. Only this last summer, when travelling on a certain line at the rate of only about twenty miles an hour, the carriage jumped, and jerked, and positively rocked from side to side like a cart on a rough country road. Enormous improvement has been effected in this respect, but much remains to be done, and doubtless will be accomplished as competition increases.

EPIDEMIC MURDERS AND SUICIDES.

WITHIN a short period of time three murders, with destruction of the murderer's life by his own hand, occurred in a section of London which would be covered by a triangle having a mile for each of its sides, and a glance at the papers will prove how enormously cases of suicides have increased during the last few years. Statistics support this fact. For our own part, we believe a good deal of this increase is due to the mischievous prominence which the newspapers give to such tragedies. The chief business, apparently, of some of the daily Press is to create a sale, and as the competition increases, so does the necessity for attracting the attention of the public to their own paper. So long as this competition is carried on in a legitimate manner it behoves no man to cast a stone; but when we see such an announcement as "Romantic suicide of a governess," as if any suicide could be romantic; or "Grafton Street murder, ghastly details;" then we rub our eyes,

and wonder whether we are living in the nineteenth century, the age of intellectual growth. It makes us consider, too, how the Press has attained such an enormous influence in this country. We are sometimes disposed to believe that if some power could be brought to bear upon the editors of papers to compel them to sift out a good deal which is impure and pernicious, then the Press would become an instrument for unlimited good, as it is a weapon of unlimited power.

It is, we believe, in many cases the publicity which is given to murders and suicides which not infrequently puts the first thought of crime in the brain of some individual. The thought is nursed and grows and grows, until ultimately it is translated into action and culminates in one of the dreadful tragedies we are all determined not to read, but which we invariably find ourselves interested in, and greedily devouring.

This question of imitation plays a far more important part in our lives than we care to admit. If a person yawns in a room, a good many others will often follow the example; if we see others near us timid, it will either make cowards or the reverse of us. A panic in a theatre is simply irresistible mimicry, which often leads people on to their fate against their best judgment. In the battle-field a panic is always dreaded. We see

the most ludicrous aspect of mimicry in the way in which men and women follow the fashion of the hour. What can be more ridiculous in the present-day fashion than to see a squat, fat woman wearing the enormous epaulettes which are in vogue? They increase a natural defect. You see evidence of this mimicry also in every section of society. A story is told of the Duke of Wellington. Someone said to him one day, "Do you know, your Grace, I am always being mistaken for you?" "Strange," said the man of common-sense, "I am never mistaken for you." All great men are copied in speech, dress, or manner—copied, of course, by their inferiors. A very curious instance of this mimicry occurred in France. A nun in a large convent in France began to mew like a cat; shortly afterwards other nuns also mewed. At last all the nuns began to mew together every day at a certain time, and continued mewing for several hours together. This daily concert continued until the nuns were informed that a company of soldiers was placed before the entrance of the convent, provided with rods, with which they were instructed to whip the nuns if the mewing recommenced. *The mewing ceased.*

If we could only drive home this important law of imitation we should probably check to a large

extent the alarming and rapid spread of these tragedies which are so sad and so discouraging. We are reminded too often and too attractively of all murders and suicides. Some time ago a young poet and his wife died a voluntary death, leaving behind some blatant and egotistical trash which proved that he was leaving this world with a crazy conceit. This case, too, was only one in a cluster of similar ones. It is well known that a sensational murder increases the sale of a daily paper more than any national calamity or political crisis. Depend upon it, there is lurking in all human nature a savage instinct, a love of the horrible, which we ought to endeavour to starve; instead of which, forsooth, we strengthen this low instinct by feeding it with every detail of cruelty and crime. One cannot but regard with disgust the conduct of those who choose to attend a trial for murder, follow all the horrid details, and through their opera glasses gaze hour after hour upon the man's face, and watch there the play of agony, passion, or remorse. Pity could not do so; Christianity would not do so; and sympathy ought to render such conduct impossible.

ON FASHION.

A GREAT number of fashions in dress have their origin in the attempt which some celebrity had made to hide a deformity. Pointed toes of shoes became popular because a royal person had bunions, and the shoes were in consequence made with long and pointed toes so as to obscure this condition. But there is a much stronger force at work, and that is the force of irresistible mimicry. Nothing stands out more clearly in the history of mankind than this imitative tendency. A book of fashion-plates will make a thoughtful person as sad as a weekly record from the Registrar-General; but still this book is a law to thousands of women—yes, and of men too. Irrespective of the form of dress suiting the individual, there is this blind, stupid, and apparently irresistible tendency to be "in the fashion." Now, so long as this does not interfere with the healthy, harmonious working of the organs of the body, the physician must stand on one side, and he may be permitted

to smile as he sees a stumpy, grotesque individual adorned with garments as gay as a peacock or butterfly, and he may be permitted to notice how infinitely more becoming is the simple, graceful, ay, and useful dress of a servant or a nurse than that of the most elaborately dressed woman of the world.

But as we have just remarked, it is our business only to step in and speak without fear or favour when the health of the community is damaged by fashion. So much has been written about tight-lacing and thin shoes that I will not weary my readers by more than alluding to their pernicious effect upon the well-being of an individual.

What is a serious aspect of fashion is its tendency to embrace and hold fast the thoughts of individuals, to lead them on and on until it becomes a positive mania. Men are quite as much under the sway of this influence as are women. It is told of Beau Brummel that a friend on calling to see that remarkable person was met by his valet with a trayful of neckties crumpled and soiled. "What are these?" said the friend. "Failures," answered the valet. We may laugh at such stories, but is there a man or woman who has not striven to be in the fashion? It requires a strong will and an iron purpose to withstand the temptation of dress. There is a

feeling that the giants of the world have been careless of their dress ; but this is only partially true, because men of our own epoch, such as Disraeli and Dickens, were well-dressed, well-kept, and particular men ; and if anyone will walk in the West-end of London he will be impressed by the faultless dress of some of the best known men of the present day. It would be bad taste to select any typical illustrations of this truth, but many instances will at once spring into the memory.

This decorous-cleanly habit of being well, carefully, and neatly dressed is quite a different matter to the feeble, stupid custom of "following the fashion." Here we drift into quite another sphere of thought, and, as has been said, it is the mimicry of the weak which follows blindly and tastelessly in the wake of fashion.

We have little conception how much this irresistible plagiarism has influenced the action of men and women in the drama of human experience. Even among bees it is said that when a band of brigand bees enter a strange hive to despoil it of honey, the owners of the hive are themselves so carried away by the contagion of rapine that they will even go over to the robbers' side and assist them to destroy the result of their own labour. An English

prison matron once confessed that sometimes when she heard the women under her care "break out," as it is called, and commence smashing and destroying everything they could get hold of, it was as much as she could do to restrain herself from joining in.

Examples such as these show us how much we are all influenced by our surroundings. One of the most terrible scenes in the world must be a panic. Yet we know that so contagious is the sense of danger, that men and women have been known to trample their fellow-creatures to death when a fire has broken out at a place of amusement. Abundant testimony could be produced to show how whole armies have been seized with panic, and have paid the penalty by defeat.

Fear is the most contagious of all the passions. It is for this reason that we find during an epidemic of a fever or other infectious malady that people are seized with a panic which will so warp and prejudice their judgment that they will perceive in every pain an indication of the approach of the malady which they dread. Dr. Alfred Carpenter has drawn our attention to the remarkable results of this power of mimicry in his most interesting chapter on "Epidemic Delusions," and he shows us how a dominant idea will blind the common sense and destroy the will.

Other familiar instances of the contagiousness of certain states will occur to any thoughtful person. Laughter is also most irresistible, and so is crying, and it is curious to notice how the spectators at an athletic gathering will rise up in sympathy when the competitors are making the high jump. On one occasion I stood in the street and saw a poor lad's foot run over and crushed, and just as the wheel passed over the limb I saw several people lift up their foot as if in pain. This irresistible copying has a very important bearing when we take our thoughts into the moral and intellectual atmospheres, for it does require a strong will and a high moral tone to pass through the scorching fires of riotous living and immorality without scorching our wings. It is better to bear in mind Jeremy Taylor's true words, that "we must have a long spoon if we sup with the devil," for we must always remember that the evil influences of the world are as abundant as the good, and are equally contagious.

WOMAN'S PLACE IN NATURE.

DURING the last few years an enormous amount of literature has been published upon this subject, and much discussion has taken place in both the scientific and other journals of the day as to the mental capacity of women as compared with that of men. Now, let us approach the subject from the practical point of view, and endeavour to account for the inequality between the thinking powers of the two sexes, an inequality which, I think, must be apparent to any honest observer. To attribute this to an inferior brain power of women is fanciful and absurd, and is not supported by the testimony of either the physiologist or the anatomist. We believe that, if there is any difference in the receptive powers of the sexes the advantage lies with women, because if we take an equal number of boys and girls up to that age when they play and tumble about together, we shall find the girls are in front of the boys both in the quickness with which they acquire knowledge and the

physical development which enables them to acquire so much more readily the movements of dancing or calisthenics. But directly you lay hold of one half and train them to a certain set of actions and opinions, and the other half to an opposite set, of course you will find they develop exactly in that direction in which you direct your efforts. You cramp the girls mentally directly you set them down to music, and sewing, and deportment, as surely as you hinder their physical growth by embarrassing every movement by the dress which they are obliged to wear. There is no occasion why we should seek for any more obscure cause for the explanation of the simple phenomenon of the different mental powers of the sexes.

What we are concerned with chiefly is to face the fact that women are now pressing men very closely in the conflict of life. The door of the medical profession has been thrown open to them; we see women taking an important place in the Poor Law system and on School Boards; we see them treading upon very delicate ground when they deal publicly with social questions which a few years back were discussed only by men in private. The Post Office employs thousands, and we find them crowding into the political world, and it is certainly best to give them every chance

in the race of life. At the same time, it is well to utter a word of warning. The experience of medical men must bring them in contact with many instances in which a young girl has had her health shattered by an almost exclusive attention to the intellectual life. Just at the age when she is growing and building up her nervous system and her physical frame, she is confined to her lessons, and little time is devoted to air, exercise, food, and sleep. The inevitable result follows: Dame Nature steps in and says, "You cannot force the mind by too much feeding any more than you can force the growth of the body by over-eating." We see quite young girls going home from school with home lessons which it would puzzle many of us to learn in a lengthy sitting. We do not wish it to be understood that the female intellect should lie fallow. Far from it; but surely it is high time that someone said, and with no uncertain voice, that there is plenty of work in the world which women can do much better than men. There is, for instance, the whole of the domestic life, embracing the important subjects of cooking, cleaning, mending, sewing, &c., &c. At the same time, it is some stain upon the escutcheon of women that even in cooking the men have always been on the top of the wave.

Again, if we look at the arts it would appear

that women, from their more subtle sensibilities and their exalted imaginations, would beat the men in music, and literature and painting. But is this so? Is it not rather the truth that where we find one woman excelling in the fine arts we find a hundred men? And can we point to a really great female painter, musician, or poet? Women are much better educated now than they ever were before. It is quite an every-day occurrence to meet with those who obtain the highest honours at the universities, and lower down the ladder we see girls who are familiar with modern languages, the classics, mathematics, and the sciences. Still, it must be remembered that human life is limited, that we are only capable of accomplishing a certain amount of work, and that if we direct the energies of a girl into the higher branches of education we may, and we probably shall, harm her health, and we shall certainly prevent her from paying sufficient attention to the cultivation of those womanly qualities which go to make up the character of a good wife.

Now, what attributes does a man look for in a woman whom he wishes to take for his wife? We will put on one side the question of individual beauty, for there is not, and there never can be, any standard by which we can judge the beauty of a woman. Each man, like each woman, has

his or her test, or, to speak accurately, each person has an instinct which points to what is most pleasing to his own eyes. We know not why reason is dumb when we ask for an answer to this question of individual preference. But all the lessons of all the wisest men are brushed on one side when the question of love comes into the field.

Tennyson makes Lilia say in "The Princess":—

> "I wish
> That I were some great princess; I would build
> Far off from men a college like a man's,
> And I would teach them all that men are taught.
> We are twice as quick.
> But I would make it death
> For any male thing but to peep at us."

And as the poem develops we find out how the resolution vanishes like morning mist before the "Light of Love."

This great poet has never shown his true insight into human nature more than when the Prince, awaking to consciousness, asks the Princess to kiss him ere he die. Then do we see

> "Her falser self slipt from her like a robe
> And left her woman."

It is but a type of all human experience.

The chief work of a woman in the world is to please; and I suspect, if she is frank, she will agree with Holmes, "that a woman would rather talk to a man than an angel." Although the air

hums with this cry of the New Woman, we need not fear. Experience will soon prove that those who cast on one side the refinement, the modesty, and womanliness of their sex will stand alone, and nature is against solitude—spiders only live alone. Women will find out that if they come into the arena and run the race with men, they must start from the scratch; they must be prepared to sacrifice their privileges. In the case of shipwreck it is an unbroken law of "women and children to the boats," but if the women are to compete with men it will be "men, women, and children to the boats." I don't think there is much doubt who will be there first.

If we glance at the comparative mental and physical condition as found amongst those races where education in our sense of the word is unknown, we shall discover that the women are often quite as strong as the men. Thus among the Andombies on the Congo, Mr. H. H. Johnstone tells us, "The women are often stronger than the men, and more finely developed," and Parke, in alluding to the natives of the same region, says that they are fine animals, and that "they carry loads as heavy as those of the men, and do it quite as well." And if we look at some of the work done by women in England, we shall find it is more laborious and more exhausting than that

done by many men. Some of our laundry-women work for twelve, fourteen, and sixteen hours a day in a hot atmosphere; and the amount of wear and tear which a labourer's wife has to bear often surpasses that experienced by her husband.

There are many curious facts which prove that a woman's brain is more nimble than a man's. The following experiment, made by Mr. Romanes, is of great interest. The same paragraph was presented to various educated persons, and they were asked to read it as rapidly as they could, ten seconds being allowed for twenty lines. As soon as the time was up the paragraph was removed, and the reader immediately wrote down all that he or she could remember. It was found that the women were more successful than the men at this test. One lady could read exactly four times as fast as her husband, and even then give a better account than he of that small portion of the paragraph he had alone been able to read. But we must not let this experiment mislead us, for some of the most intellectual men are slow readers. Nevertheless, it is true that this ready wit gives women an immense advantage. Buckle, in his "Influence of Women on the Progress of Knowledge," goes so far as to say it is often irretrievably injured by "that preposterous system called education." We, as doctors, often gain immensely

by the recital of symptoms of cases by wives and mothers, and frequently, when engaged in seeing the labouring classes, I have been obliged to say, "Send me your wife." A counsel who was defending a prisoner, in his cross-examination said, "Tell me, good woman, what sort of money had you?" "I had eight shillings in silver, and a sovereign in gold." The learned counsel, with a satirical curl of the lip, then said, "Tell me, my good woman, did you ever see a sovereign in anything else than gold?" "Oh, yes, sir, Queen Victoria. God bless her." How frequently must we all have been impressed with the singular power of rapid instinctive thought which women possess.

It is a curious fact, and I do not know of any reason for its existence, but I have never met with a stammering woman. Perhaps it is essential for her protection that she should not suffer from any impediment to the chief defensive power which she has. A woman's tongue is her sword, which she must never let rust.

Far too much is made of the subjugation of women. Their power in the world is colossal; it is a power for good or evil, we grant; but for those who lead the crusade for the advancement of women to say that women have no influence in the progress of affairs is to state what is false.

She who rocks the cradle rules the world; and if we read history aright, we shall discover how enormous has been the influence of women in the play of events. I do not doubt but what you could educate women as highly as you do men; but if we do so, we must as a result sacrifice much which always has and always will add to the happiness of the race. Artemus Ward says:— "When you desert your firesides, with your heds full of wimin's rites noshuns, go round like roarin lyons seeking whom you may devour, when you undertake to play the man you play the fool, and are an emfatic noosance."

BIRTHDAYS.

THE arbitrary division of time into years and segments of years has many advantages. It enables us to mark out the past into equal portions, and to grasp with some completeness the progress made in science, art, or literature in any given time. History would be most incomplete without dates, troublesome as they are to remember. In the future, maybe, able statisticians will generalize upon such topics as the weather, and say with some show of truth what is likely to be our atmospheric state during a cycle of years. At the present time such prophecy is left to the charlatan, and it is perhaps fair to say that his audacity in this direction is only equalled by his ignorance. No; we must accept the fact and say that the future is unknown so far as the movements of humanity and all life are concerned. But when we come to the natural clocks of the world—the sun, moon, and stars, then do we find time-keepers which never lose or gain a second. They

go round and round with a divine accuracy and an untiring energy. They are so exact, indeed, that the astronomer can tell us to a second when the heavenly bodies will cross each other's path in the heavens. I can well remember watching the eclipse of the sun in 1871. Few events impress one more than the creeping of the dark shadow over the brilliant surface of the sun—the gradual approach of comparative night. All springs before me even now like a picture.

Great solar eclipses have played an important part in the history of the world. It is singular how total eclipses have been connected with land and sea fighting of ancient nations. Most readers will remember the total eclipse which threatened disaster to the army of Pericles, the Athenian, who was marching against the Lacedæmonians. The whole fleet was in readiness, and Pericles was on board his own galley, when there happened an eclipse of the sun. The sudden darkness was looked upon as an unfavourable omen, and the sailors manifested the greatest consternation. Pericles, observing that the pilot was much astonished and perplexed, took his cloak, and having covered his eyes with it, asked him if he found anything terrible in that, or considered it as a bad presage. Upon his answering in the negative, Pericles said, "Where is the difference,

then, between this and the other, except that something bigger than my cloak causes the eclipse?"

If we look at time from an individual point of view we shall see the importance of special days, marking, as it were, the years of our pilgimage, such as a birthday, a day when any reflective man or woman must ask himself or herself this important quostion: "How am I spending my time?" I have no sympathy with the yawning individuals whose only thought at the end of a year is: "How quickly time passes." It certainly does pass quickly with us all; for 365 days to a lazy man or woman, it regarded as a whole, do seem to have glided into oblivion with terrible rapidity, without leaving behind any worthy monument of work done. I grant that a shorter view of time will seem to prolong its span. Try a wet day at a seaside lodging if you want to know the capacity of the hours. No, the way to make the days of our life seem the longest when looked back upon is to fill them up with work. Let us each and all build up records of which we may feel proud to mark the road we have travelled; then when we look back we need not blush for our past, and see there only a blank pathway. This view is, I believe, contrary to what is generally held. It is said that time hangs heavily upon those who are idle and lead

meaningless lives, whilst a busy life causes the hours to slip away. This is true of the moment, but it is not true when we look back upon a long stretch of time.

It is exactly the same with a long journey over a monotonous country road. As we pass on, each mile we travel seems ten, yet when we reach our destination we have seen very little which has interested us, and the time has gone and the distance travelled almost without a trace of its escape. But let any individual spend the same number of hours in passing through a picturesque and broken-up country, and I think he will find the milestones come quickly into view, whereas at the end of the journey the hours appear filled up.

The custom of turning back the pages of our life is not only useful from a moral point of view, but it is also judicious to remember that every organ in the body has its birthday. When the organism is growing we need not dwell for an instant upon our vital functions. In the middle period of life, too, when the tissues of our body keep practically on the balance, a man is a fool if he concerns himself too much about the condition of his heart, or lungs, or what not. But when the whole tendency of the functions is to failure, when we feel we want a spur instead of a curb, then it is wise to listen to the teachings of nature, for we

must remember the march of degeneration is as definite as is the progress of development. Physiology tells us with absolute frankness and without any regard for sentiment that the lighter bones and the weaker and lighter muscles of old age mean diminished power of resistance and a narrower range of action. Notice how, with this there is a diminished desire for running or jumping. If we glance inside at the big wicks of life, the brain, lungs, and heart, we find the same lesson taught with the same clearness. I am not advocating a perpetual introspection of the interior of the body—far from it; but the wise man will remember the effect of years upon his organs, which he cannot forget. Nature, however, seems to give some compensations to a man for his diminished physical power, for we find old age to be almost proof against certain maladies. Small-pox and typhoid fever may be mentioned here, and consumption is exceedingly uncommon in the aged.

The number of aged people is not increasing so much as many are led to imagine; there is a great gain in the average duration of life, but the gain is chiefly in childhood, thanks to increased sanitation. If we glance back into history, we shall find many facts which show that people were considered "old," whereas now at the same age

they would certainly class themselves as capable citizens. Cato the younger said to those who would stay his hand from killing himself, "Am I now of an age to be reproached that I go out of the world too soon?" He was but eight and forty. "Old John of Gaunt," as Shakespeare calls him, died at a little over fifty years of age. What is of extreme interest is to see how the body submits to the ravages of time. You will see some individuals with shrunken shank and tottering gait who, nevertheless, have active brains and accurate judgments.

> "My son, if old men's legs are slow,
> Think of what force their wits can go."

Whilst others, whose brains have deteriorated from age, have legs and digestions like young men.

Far too much is made of the disadvantages of old age. It has a dignity and a beauty all its own; for there is a progress of the frame which melts slowly away, and glides, as it were, into the grave as easily and as gracefully as the falling of a leaf from its parent tree.

CHILDREN'S MEMORIES.

WALTER SCOTT in his autobiography states that he could clearly remember lying on the floor of his grandfather's parlour wrapped up in a sheepskin warm from the body of a recently killed sheep. Scott was only three years old at the time. David Copperfield's memory goes back further than Scott's. He says he can distinctly remember going unsteadily from his mother's arms across the floor to the outstretched arms of the servant. He could not have been more than eighteen months old at the time, probably not so much. It is known that Dickens depicted his own life in David Copperfield's. Dickens thought the power of observation in very young children is, in some instances, quite wonderful. He told his friend John Foster that he remembered quite well a small front garden attached to the house at Portsea, from which he was taken when he was two years old.

Jean Paul Richter in his autobiography says,

"I am glad that I am still able to recall a dim, faint recollection of the time when I was twelve, or at most thirteen months old, like the first mental snowdrop out of the dark soil of childhood." I know a bright, quick-witted, impressionable woman who remembers distinctly a big dog which was chained near the house in which she was born. As her parents left this house when she was a little more than a year old, her memory equals Richter's.

Personal experience is the most valuable if we wish to come to any accurate conclusions; but in this respect it is very misleading. Let any one sit down and try to pierce the past and travel back to his first remembered impression, and I venture to say he will find the task a most difficult one. I suppose the truth is that no two individuals are alike in their receptivity. There are a number of sieve-brained people in the world through whose intelligence everything runs like water. These would probably not receive mental impressions before four or five years old—that is, lasting mental impressions. That is why young children vary so much in their attractiveness. One thing, however, is certain, "that as we advance in years these far-reaching memories of childhood bring back with them a joy which is as natural and pure as sunshine."

Clearly, then, it is the duty of every parent to present to the pure minds of their children bright, healthy, and natural pictures. There are old memories which spring up in our brains sometimes which will bring a choking into our throats. Not always sad memories either, but they come silently out of the past, and whisper into our ears with a true pathos, that the joys of youth and childhood have passed away, never to return.

I have no sympathy with those who whine over the losses of the past. Such melancholy is too common. Our pleasures are no better for being antiquated. They don't want treasuring like trinkets. If we would only let the pleasures come to us instead of going to the pleasures of life, how much we should gain! Children teach us a wonderful lesson in this respect. They will get keen enjoyment out of any old toy, even out of an old shoe. The writer of this has been a pilgrim for forty-eight years, and as he writes now he cannot honestly say any treasure which he now possesses or has possessed ever gave him the same degree of enjoyment as a toy windmill which was given to him when four years of age. In these luxurious days young children's nurseries are crowded with the most expensive toys; the result is a jaded and insatiable nature, which in later life far too often floats the boy or girl into one of the

particularly objectionable individuals who yawn through their days and listlessly whisper, "What a bore!" Depend upon it that if we wish the retrospective panorama of life to be shot with streaks of true happiness, we must make these streaks by leading a simple, natural life, by letting our pleasures be those of simplicity and health. Then, indeed, if our brains were early impressionable, we shall often enjoy the rare pleasure of reviving old days; and rest assured none will be sweeter or more refreshing than those which were the first to bite on the mental plate.

This power of reviving old memories requires exercising if we wish to get its full enjoyment. The power of recollection will wax feeble unless we exercise it, and it is worth exercising, for there is profound wisdom in the words of Jean Paul, who said, "Memory is the only paradise out of which we cannot be driven."

CRIPPLES.

In November, 1800, Nelson arrived in his native town of Yarmouth, after the victorious battle of the Nile. He was received with immense enthusiasm by a great crowd; the horses were taken from the carriage, and he was pulled in triumph to the Westless Hotel. Here the corporation presented him with the freedom of the borough; and whilst the oath was being administered the town clerk noticed that Nelson's left hand was upon the sacred Book. "Your right hand, my lord," said the official. "That," replied the intrepid hero, "is at Teneriffe." This incident shows how Nelson, with that boyishness and light-heartedness which marked all his life, could look upon the loss of a limb.

Toole tells a most touching story bearing on this question of loss of limb. He was giving an entertainment at Christmas time to the inmates of one of our London Hospitals (King's College, I believe). His audience must have been a strange

one, for many had to be wheeled within the auditorium in their beds, being unable to move. Some were blind; others were suffering from some mortal malady. Amongst them was a little boy who was in one of the beds nearest the platform. Toole was giving his monologue, "Trying a Magistrate," much to the delight of his strange audience. None laughed more heartily than this youngster, or seemed to enter into the spirit of the piece with a keener sense of its fun. After the performance, Toole noticed the boy never applauded, and being somewhat curious to know why he did not do so, he went to him. The boy then said, "Thank you, Mr. Toole. I have been so very much pleased." Toole said, "Then tell me why you did not applaud." "Couldn't, sir, because I have only one hand!" was the answer, and thus the puzzle was satisfactorily explained.

Let any man or woman tie their hand to their side, or place a bandage over their eyes for one single day if they want to know the weariness occasioned by suffering, or by the loss of freedom of movement. Those who have seen anything of the surgical treatment of children must have been impressed with the opposition shown to any restraint of movement. Children will often wriggle out of their splints during the night with as much cleverness as a conjuror escapes from the ropes which

confine him in a chair. There is an old Scotch proverb which says, "Cripples are aye better schemers than walkers," and certainly the ingenuity and the assiduity which a child will exercise to escape from the constraint of a splint or a bandage is remarkable. A healthy and moral man or woman cannot, it is evident, have too much freedom, but the health must be the preliminary condition. When disease is present obedience is necessary, and restraint must be practised.

This is why the liberty of a state must blend with a love of order, otherwise there is a clashing of interests, causing discord and conflict. Glance for a moment at one of the great forces of nature, say the flow of a rapid river. See how it will glide smoothly and peacefully over a smooth bed. See how it will obey the curves of the banks. Then throw into the stream a piece of rock, and at once the quiet onward current is arrested, and we have struggle and disquiet produced. I once asked a noted physician what he meant by health. He said "ease," and his remark was true. There is not a natural function or an organ of our body which will not in health go on silently, smoothly, and without our knowledge if we let it have fair play. Glance at some of the organs essential to our very existence. The centres of life, physical and mental, the brain, heart, and lungs,—these are packed in

bony cupboards—away from our interference. They require no inspection, they ask for nothing but freedom, and they teach us that the healthy free working of mind and body is what makes one strong, helpful, and, as the professor said, "easy."

There can be no more impressive lesson taught than what we learn when we think of the human heart. Here is an organ which must night and day from our birth until our death go on, and on, and on, never ceasing, never growing weary; and so it does if we give it freedom, and do not by our actions or our thoughts disturb its essential service. To the scientific man the heart is a hollow muscular sac, a simple pump which has to distribute the blood over the body; but to the poet it means far more than this, for do we not meet with such expressions as "His heart beats high with hope," or the Italian proverb, "Thou art as dear to my heart as the sun to my eye"? No wise physician will ever lose sight of this power of Hope in restoring people to health. Not the least pleasing part of a doctor's work is to see the bright smile with which his patient receives him. Hope is an immense force in the world.

> "True hope is swift, and flies with swallow's wings,
> Kings it makes gods, and meaner creatures kings."

To thousands it is their only solace. It leads the

cripple to struggle on in spite of his burden, and he is justified in so doing, for we have many instances of difficulties overcome by those who have had the misfortune to be either born or have become cripples.

Many of us remember an Irish gentleman who, though born without limbs, left behind him an honoured name. Not content with working as a Member of Parliament, he was known as a rider to hounds, a good shot, and a first-class whip. Nothing can brace up a man's energies more than fighting against adverse conditions. It is an easy thing to live our life out when our sun is shining, when nothing crosses our path; but it does require a strength of will to stand up and fight the battle of life with a twisted spine or a palsied limb. The poet Heine has called a long period of suffering "A mattress grave."

The human beings who become cripples from accident are the most to be pitied, those who have known what it was

> "To stand complete in all their flesh,
> Strong in the morning, sleeping fast at night,
> Taking the winds of heaven as they blew,
> Without a special sense save joy in each."

Let us deal gently with those whose misfortune it is to be the unfortunate victims of some physical deformity. Byron's life was embittered by the knowledge of his club foot; Pope was a hunchback,

and must often have felt that cramping which such a condition produces in a man's movements.

Oliver Wendell Holmes has nothing more touching in the range of his attractive writings than the end of the little gentleman. The following extract is full of feeling and beauty and tenderness; it is just when the divinity student pays him a visit and alludes to his sins. The little gentleman who, we all remember, was a hunchback, after this allusion to his sins, says: "I have learnt to accept meekly what has been allotted to me, but I cannot honestly say that I think my sin has been greater than my suffering. I bear the ignorance and the evil-doings of whole generations in my single person. I may have had many wrong thoughts, but I cannot have done many wrong deeds, for my cage has been a narrow one, and I have paced it alone. I have looked through the bars and seen the great world of men busy and happy, but I have no part in their doings. I have known what it is to dream of great passions, but since my mother kissed me before she died, no woman's lips have pressed my cheek, nor ever will."

But a woman's kiss did press his cheek, for Iris, whose womanly instinct told her he was going to die, went to sit with him, and she was there at the time of the little gentleman's tirade. Her eyes

glittered with a sudden film, and almost without a thought, but with a warm human instinct that rushed up into her face with her heart's blood, *she bent over and kissed him.* That kiss was the emblem of Pity, and it would be well if all those whose limbs have their range of usefulness would sit down at times and try to relieve (they can only try) the sad lot which many a cripple has to endure. Such a thought would often make them happy, because it would bring them contentment; and it would stir up generosity which would often enrich our hospitals.

ANTIPATHIES.

IT is well known by every individual that certain liquids will not mix, or marry, as the wine-mixers express it, and in this section of thought the word "incompatible" fairly embraces the meaning of the phenomenon. For instance, it is said that oil and vinegar are incompatible, and in chemistry a great deal of accurate knowledge is in the possession of those who have studied the entrancing science.

Gradually, however, as we pass into the organic world, we find many interesting phenomena which we cannot always predict. Amongst the lower animals are many interesting facts which support this statement. Dogs will very commonly form violent attachments and antipathies, not only against human beings but against their own species. Of course an explanation is often due to the antagonism caused by the struggle for existence; but outside this question there are many observations which prove conclusively that it is not always the question of living which excites the antagonism one animal has for another.

An interesting cluster of instances of antipathies could be gathered from an observation of the special senses. Take sight as an example. I know individuals at the present moment with a horror of spiders, others hate everything without legs—"creeping things"—whilst there are thousands who will scream, and even drop down if they saw a mouse or a rat. Perhaps the most common sight-antipathy is that against blood, or an open wound. I have seen a strong young fellow tumble down as if he had been shot at the sight of a few drops of blood which followed the prick of the lancet for vaccination. I have also known an instance of a student entering the medical profession who never did conquer his antipathy to blood, and was ultimately obliged to give up his calling for the reason that he fainted whenever he witnessed the slightest operation.

We may take the special senses seriatim, and meet with many inexplicable instances of fixed and rooted repugnances. I do not know of any physiological reason why cutting a cork or scraping a slate pencil across a slate will make nine people out of ten grind their teeth. Neither am I able to say why sharpening a saw is hostile to the feelings of so many. When we fix our attention upon the internal organs we meet with the same curious phenomena. "What is one man's meat is another

man's poison," is a proverb which is more true than most proverbs. Carlyle used to feel faint when he saw veal on the table. I do not know whether he ever ate this food, but I know instances at the present time of individuals who cannot digest mutton, eggs, cheese, or fish of any kind. This curious antagonism of the stomach it is wise to recognize. Healthy human nature will always work in a wise way, and anyone who forces on his stomach a form of food which is obnoxious is unwise. Depend upon it there is some good reason for this hatred. I say "healthy human nature," because it is necessary to remember that there are a number of pampered individuals whose tastes are so perverted that they will eat any rubbish, such as nut-shells, and even pieces of coal. These want passing on to the doctor.

One difficulty the doctor has to contend with is the antipathy which some individuals have against certain drugs. These are not the pages in which it is prudent to enter into this part of the subject; but I may state one word of warning. Just now there is an enormous consumption of remedies which produce sleep. But it is of importance to know that there is not one of the so-called sedatives which may not in some organisms produce grave and even serious symptoms, even in small doses. Opium and chloral and sulphonal, are examples;

and it is not only unwise, but it is positively dangerous to tamper with such potent remedies unless they are given by a recognized doctor. The coroner's court almost every week gives instances of those who have lost their lives by this domestic drugging, which has become far too common amongst the laity.

Let us now pass on to consider the most interesting part of our subject—the question of personal antipathy. I often wish we had some infallible rule which would enable us to say when two persons would amalgamate, for much misery would be spared if we had any such knowledge. It is a well-known law in natural philosophy that every substance in the world is, as the electricians say, either positive or negative, that is, it is either attracted or repelled by the magnet. Just so is it with any two individuals. We know not why; but experience tells us with no uncertain voice that we are either attracted to an individual or repelled from him. Why is this so? If we take our own experience as a guide, we shall be startled to find that the friend we love best is frequently antagonistic to us in calling, taste, and habits. The friend whose society I never tire of, in whose company I have spent more happy hours than I can ever remember, is, I am sure, as different from myself as it is possible to conceive any two human

beings to be. Yet the fact remains that of all men I should pick him out as the one with whom I should prefer to spend my days, and I have some reason to believe that the same truth applies to him. He differs profoundly from me in very many ways. His calling in not mine. He is an expert in subjects of which I am ignorant. May it not be true that this very deep difference in our natures enables us to mix well? He supplies my deficiencies; he does not possess my failings; and I have often thought that the recognition of this fact gives me the key of a friendship which has now stood the test of over twenty years.

I do not think this is sufficiently recognized in selecting a partner for life. We frequently hear it said, "That Miss Jones has married Mr. Brown, and that they are sure to get on together because their tastes are similar." But a few years of constant companionship as man and wife show that a blunder has been made; and I confess to leaning to the belief that by far the happiest marriages have taken place between individuals in whom there has been an abiding difference of tastes and habits. The difference must not be that of religion or race, because domestic life will not stand the strain of such profound antagonism, nor must it involve any real though inexplicable antipathy. This question of personal antipathy is

at the root of most of the misery which creeps into thousands of homes. It is an antipathy which may exist between child and parent, or brother and sister. When it does, the pain which it may occasion is enormous. No one can over-estimate the terrible strain it is to live day after day with those to whom we are, if we may so term it, "antipathetic." Far better is it to recognize the insurmountable difficulty, and bow to its force. There can be no social life where there is so sure a source of discord.

FOOD.

"WHAT call you these grunting brutes running about on four legs?" demanded Wamba, in the old play.

"Swine, fool, swine!" said the herdsman. "Every fool knows that."

"And swine is good Saxon," said the jester. "But how call you the sow when she is flayed, and drawn, and quartered, and hung up by the heels like a traitor?"

"Pork," answered the herdsman.

"I am glad every fool knows that too," said Wamba.

Wamba might logically have said, "What do you call the pork when it has been dried and salted?"

"Bacon," the answer must have been.

The word itself is probably a corruption of baken, or dried flesh.

The flesh of the hog is peculiarly valuable for its quality of absorbing salt to a large extent, and

certainly we do not possess in any one of our animals a more useful article of food than the common pig, some parts of which, when properly cured, as the Wiltshire ham, deserve Charles Lamb's compliment as "The poetry of bacon."

Almost every part of the pig is consumed as food, even to the blood, which makes black-puddings. The enormous difference in the quality, nutritive value, and digestibility of pork is almost entirely due to the food consumed by the animal. The best bacon comes from pigs fed on potatoes, barley-meal, and with milk where it can be obtained. A good deal of the foreign bacon now so much eaten by the English people, even in the remote villages where it is sold cheaper than our own, is fed on sugar and other rapidly fattening foods. Hence it lacks energy-giving power, and is often difficult to digest. There is an infallible test which will distinguish good from bad bacon. If the animal has been properly fed the bacon swells in the pot, if improperly it shrinks.

Southey and Charles Lamb, in their writings, have both done justice to the pig; and George Morland has drawn him at all ages and under all conditions, and, so far as I know, with the exception of his contemporary and plagiarist, Ward, he is the only artist who has caught that indescribably droll expression of a pig's eye.

Still we must recognize the fact that the word "pig" is used as a term of reproach. In the East this is particularly the case, because there the animal is a lean, savage beast, whose flesh is unfit for human food, and for this reason the verse in Leviticus becomes intelligible, which says, "And the swine, though he divide the hoof, and be cloven-footed, yet he cheweth not the cud; he is unclean to you."

This old Jewish prejudice against the pig has not yet died out. There are many individuals who would turn pale if you suggested a visit to a pigsty. Does not Shakespeare say, "Some men there are love not a gaping pig"? For my own part I confess to being a great admirer of the animal. There is a quaint, independent, low-comedy look in a pig's face which always excites my admiration. Dirty he is in his habits, I admit, but please remember how little attention is paid to his dwelling-place. As a matter of fact the animal often falls a victim to his insanitary surroundings. Typhoid fever and scarlet fever are common diseases amongst these animals. They are seldom spoken of as such, but under the term "Swine fever," recognized as contagious disease by the Local Government Board, which has great powers for dealing with an epidemic of the disease.

The prejudice against the pig has also been increased since the discovery that the flesh may become the nest for a dangerous parasite known as *Trichina spiralis*, and that this parasite may pass into the organism of man, and there cause so much havoc as to produce death. Dr. Zencker, of Dresden, only in 1860, discovered the true nature and habits of this parasite. As a useful hint, let all who eat pork remember that if we place the frying-pan between our stomachs and the pork we shall destroy any living organism, and so may eat with impunity pork which has been attacked by any of the low forms of life. The same remark applies to all meats. Underdone food is always to be avoided, because it may contain the ova of any of the tapeworms.

In spite of all this, we have the fact remaining that in bacon we have a form of food which we can take day after day for a longer period than almost any other kind of food without its becoming repugnant to the stomach. There are thousands of English country folks who eat scarcely any other kind of food from year's end to year's end. They will sit down on a blazing hot August day and enjoy, with an enviable appetite, their homely meal of hot fat bacon with cabbages and potatoes. Think of it all those who want their fastidious appetites tickled with a bottle of piquant sauce, or

a lobster salad. I can remember seeing plough-boys eat for their suppers, in an old farm-house, hot bread and milk with treacle, and pieces of fat bacon mixed therein, and I know of no combination which would be more economical or physiological, and these lads enjoyed the mixture. "It's poor eating when the flavour of the meats lies in the cruets." I hope the readers of this article have known what it is to earn a good appetite by some physical work, and then to sit down to simple food in a simple way; then do we know how pleasant a thing it is to gratify a natural want. I think a lunch I once had under a hedgerow made from bread and bacon stands out as one of the most enjoyable meals I ever ate.

Let us hear what science has to say about bacon. In the first place it differs from fresh meat in the relatively large amount of meat and small proportion of water. A pound of beef contains more than four times as much water as does a pound of dried bacon; hence it is that bacon, being so much more solid, is so much more sustaining than beef, and will give a man his physical energy at a cheaper rate than any kind of fresh meat. Bacon also has more relish, is easier to cook, and easier to keep, than any other meat. And what is important to the doctor is the fact that invalids, even young children, who cannot be prevailed

upon to eat fat of any other kind will eat the fat of bacon. It cannot be too strongly impressed upon the public that English bacon is always to be preferred to that of any other country, and although it is more expensive, the extra cost is more than compensated for by its not cooking away. And there certainly is no comparison in the flavour. Good bacon should not lose more than ten to fifteen per cent. in cooking. We have already alluded to the nutritive value of bacon. It is only necessary to say that this nutritive value is largely due to the large amount of carbonaceous matter which it contains, carbonaceous matter being the fatty or heat-producing part of meat. The word is used in contradistinction to nitrogenized, which equals the lean or flesh-producing part. Hence it is that custom and common sense have so combined our dishes that we supply our bodies with both varieties in our common dishes. We eat eggs with bacon, veal and poultry, beans and peas, and we act wisely in so doing.

In conclusion, I should like to repeat with emphasis that in English bacon we have a form of food which ranks high, both as regards its nutritive value, its digestibility, and its convenience. There is an unfair antagonism to the pig both during life and as pork or bacon. Most of this prejudice has arisen from tradition, or the

fact that badly fed pork has been eaten which has been the result of either indifferent surroundings or improper feeding, and has, in consequence, caused disease.

HYDROPHOBIA.

THE first unmistakable account of hydrophobia is found in the works of Aristotle (322 B.C.). Cornelius Celsus (130 B.C.) also gives an admirable description of the malady. The knowledge of this terrible disease remained stationary until the end of the last century, when a series of investigations was made by John Hunter, Youatt (who wrote a book on the dog), and a German called Herting.

The first question which it is necessary to consider is—*Does rabies ever arise spontaneously?* It may be stated at once that science cannot admit the possibility of the spontaneous origin of any contagious or infectious disease; and although authorities have almost unanimously agreed that by far the greater number of cases arise from inoculation by means of the bite of a rabid animal, it has been asserted by some that a self-originated cause of the disease might arise in the dog, wolf, fox, jackal, badger, &c.

Many predisposing or exciting causes have been enumerated which favour the development of hydrophobia, such as intense heat, or cold, want of drinking water, domestication, &c. Yet experience confutes all such theories, as rabies has been known to rage for years among foxes, and at all seasons of the year.

What is the exact nature of the poison of hydrophobia? It may be stated that the nature of the infecting principle of hydrophobia is absolutely unknown. Neither chemical nor microscopical analyses of the saliva of mad dogs have as yet given any clue to its detection. We do know that the poison is contained in the saliva and foam of the affected animal, and also in the blood, and that the poison may remain quiet for weeks, even months, without producing any symptoms. How long this period is we do not know, and this is the reason why the disease, often checked by the enforcement of the muzzling order, breaks out again after the order has been rescinded.

Whether the bite of a mad dog shall be followed by infection or not depends partly upon individual predisposition, but chiefly upon the circumstance whether the bitten part is protected by any covering, for the covering may wipe off any saliva before the teeth penetrate the skin. This is why

a bite on the face or hands is more frequently the means by which the virus enters the organism than bites on the trunk, arms, or legs.

Those who have written on hydrophobia have divided the disease into two varieties: (1) The violent form; (2) the sullen form. These have again been sub-divided, but the subdivisions it is not necessary for us to discuss in these pages. At the outset of the disease the animals show a changed behaviour and are constantly shifting positions. Their conduct to those around them is altered. Their appetite is disordered and they will eat such substances as hair, straw, rags, earth, bits of leather, and the like. As the disease advances the dog becomes violent, shows a tendency to bite, makes efforts to steal away. There is also a peculiar modification in the tone of the bark. This change in the tone of the bark is very characteristic, and the animals raise the muzzle somewhat in the air, just as healthy dogs do at the sound of music.

No special dread of water is manifested. This is contrary to generally received opinion, because in the human subject there is a marked aversion to fluids. In forming an opinion as to the hydrophobic condition of a dog, we must not base that opinion upon any symptom, such as the propensity

to bite, but we must take in the picture as a whole. It is best to state frankly that hydrophobia will not yield to any drug with which we are acquainted. It naturally follows from this terrible truth that our remedies must and ought to be largely preventative.

The muzzling order which is now in force is based upon sound scientific principles; but as collateral aids we would advocate a reduction of the number of dogs, for the danger to be apprehended from hydrophobia diminishes as the total number of dogs becomes reduced. It is astonishing to know that in Central Europe there is found one dog to every sixteen human beings. The reduction can only be accomplished by increasing the dog tax, excluding, of course, those which are kept for use. Probably it would be a fairly accurate guess if we said eighty out of every hundred dogs are kept as matters of luxury. The only absolute efficient way to eradicate hydrophobia would be to kill every dog in an infected area.

What is the most efficient way to protect those from hydrophobia who have been bitten by rabid dogs? The prompt destruction of the virus is the answer. For this purpose many methods have been in use for centuries. Cauterization with a red-hot iron, with caustic, or igniting gunpowder in the wound, are all popular remedies

with the laity. Even amputation of the wounded part has been resorted to. The following method has been carefully tested and is worthy of recommendation. After the wound has been thoroughly bathed with warm water it is to be gently sponged out with a solution of carbolic acid, one part of acid to twenty of water, if this is not attainable soap-suds are good. The wound is then to be cauterized with nitrate of silver, caustic, blue-stone, or any acid, such as nitric or sulphuric. Suction applied to the wound either by the mouth of the sufferer, or, if the position of the wound forbids, by some other person, is certainly one of the most efficient remedies, and it is one which can be applied on the spot. Unfortunately there is a risk in the process. If the individual who has been bitten sucks the poison out of his or her own wound, there is a possibility (it is a remote one) that a crack or abrasion may exist on the lips or in the mouth, and the virus is only extracted from one soil to be implanted in another. Herting has demonstrated that the specific virus is completely innocuous when brought in contact with an unabraded skin or lining membrane of the mouth. This method of sucking the wound was long since described by Celsus, and was practised amongst the ancients by a distinct class of persons termed *billi*. It is a

good practise to place a ligature above the bitten part if it is a limb.

In 1885 M. Pasteur first communicated to the *Paris Académie de Science* a method for preventing hydrophobia by inoculation of the virus of dog's rabies, modified by transmission through rabbits, and by subsequent exposure to air. The idea is simply that of vaccination, and it is theoretically possible that if every human being and every dog, fox, cat, or other animal capable of transmitting hydrophobia, were vaccinated with rabie virus the disease would be stamped out. Pasteur, at all events, proved that by repeated injection he was able to render a dog incapable of contracting rabies.

He tried the same method on persons that had been bitten by mad dogs, and this with such apparent success that thousands from all countries have placed themselves under his method of treatment, and from statistics we must conclude that the process has prevented the disease in several instances. The difficulties to be contended with are distance and expense. It says very little for the scientific zeal of English people that at the present time any one who has been bitten by a mad dog must go to Paris to be treated. The virus, in the meantime, has had an opportunity for penetrating the tissues during the time spent on the journey.

THE DISCOVERER OF VACCINATION.

A HUNDRED years elapsed on the 14th of May since an obscure country doctor, called Edward Jenner, made the stupendous discovery of vaccination. It is a remarkable illustration of the birth of a prophet being without honour in his own country, when we reflect that Germany, Russia, and the United States have celebrated the centenary, whilst in England there was no such movement. By a curious irony of fate we have the capital of the very county in which Jenner was born in the midst of an epidemic of small-pox, rendered possible by the action of a few obstinate individuals who oppose for the sake of opposition. A good deal of complaint has been made against the Government of the day because it did not in some permanently substantial way recognize the value of Jenner's great discovery. We think this is entirely a false estimation of the question. Science asks for no reward. It is her business to go on slowly, steadily holding in her hand the

lamp of truth, and no honour can add lustre to the man who has made a discovery which has saved the lives of hundreds of thousands of human beings, and saved as many more from the hideous disfigurement which so often follows in the train of small-pox.

Jenner's discovery was made at Berkeley, only sixteen miles from Gloucester. The following story illustrates how his townsfolk looked upon his discovery: A lady, who had a great deal of influence at Berkeley, soon after his first book on the subject, called "The Inquiry," appeared, said, "So your book is out at last; well, I can tell you there be'ant a copy sold in our town, nor sha'n't neither, if I can help it." The spirit of this old lady seems to be still living at Gloucester. Edward Jenner was the son of a Gloucestershire vicar, and was born May 17th, 1749. He was never considered a clever boy. Before he was nine years old he had shown an inclination towards the study of living animals, and had made a collection of the nests of the dormouse. He was apprenticed to Mr. Ludlow, of Sodbury, near Bristol, and finished his medical education at St. George's Hospital.

In 1773 he returned to his native place, where he practised as a country doctor. Whilst here a young countrywoman came to him one day, whom he treated for a trifling ailment. Something was

said in her hearing about small-pox. She said, "I cannot take that disease, for I have had cow-pox." Jenner, with that instinctive appreciation which is characteristic of all great discoverers, immediately seized upon the remark, which, on investigation, he found accurate. Jenner talked about the matter so frequently and so persistently that he was actually threatened with expulsion from a medical society because of his perpetually harping upon the subject. Jenner was not the man to be blown away from his path, and feeling sure he had got hold of a great truth, he passed from the region of speculation to that of experiment. On the 14th of May, 1796, he took some lymph from the hand of Sarah Nelmes, who had been infected by her master's cows, and vaccinated James Phipps, a boy eight years old. This was the original vaccination. The news of his discovery spread like the wind, and people flocked to him to be vaccinated. Sometimes as many as three hundred people were said to be at his door at one time. From what we know it is most probable that all were protected by Jenner gratis, as we are told that he was impoverished by the discovery which he had made.

Jenner came to London for a time, but on the death of his wife, in 1815, he returned to his native place, where he died on January 26th, 1823, and was buried in the village church. He was a man

rather under the middle size, active and cheerful. He is described as being scrupulously clean and neat in his dress, and he carried in his eye that something which is always present in those who have originality and enthusiasm. With it all he was a modest man, and he had courage. The hail of derision which was poured down upon him he met with the calm confidence of a man who knew he was right.

"I know," he said, "very well the opinion of the wise and great upon it, and the foolish and little I don't care a straw for."

His modesty was indicated in the following remark made a few days before his death to his biographer, Dr. Birrown. "I am not surprised that men are not thankful to me, but I wonder that they are not grateful to God for the good which He has made me the instrument of conveying to my fellow-creatures."

No punishment can, in my opinion, be too severe for those who advocate anti-vaccination. The question is specially one for the medical profession to give judgment upon, and they almost unanimously advocate not only compulsory vaccination, but compulsory re-vaccination, because they believe it possible that if every individual were vaccinated every seven years small-pox would soon be a thing of the past.

LORD RANDOLPH CHURCHILL.

A FEW years ago, when Lord Randolph was at the zenith of his career, the writer of this paper happened to be present at a crowded political meeting. Political passion was running very high, and before the business of the evening commenced one was conscious of that expectant breath-catch in the audience, that strain of "holding in," which tension, one intuitively knows, must suddenly be broken, but during which the most trivial occurrence will elicit a cheer or a jeer. Slowly, surely, and, to the student of man, quite unmistakably, the audience was growing restless and irritable, when, from the back of the platform, there calmly walked forward a frail, pale, graceful man of about thirty-seven years of age (the fatal age, as Lord Beaconsfield has said), who seemed to be the least concerned of any one present. His reception was tremendous, and, as he began to speak, one wondered whether such a one as he could hold that mighty throng. The task seemed too great,

but any feeling of anxiety was at an end directly the first phrases of Lord Randolph Churchill's oration passed his lips.

What was the secret of this power? How came it that the heart-strings of men and women, young and old and middle-aged, responded to the touch of that master hand, continually bursting out into storms of applause, and that at the termination of the speech the whole multitude rose, waving hats and handkerchiefs, shouting all the time with excitement?

It was because this graceful and frail man possessed the two attributes of a genius, originality and enthusiasm. Without these, good work is never done. Lord Randolph possessed both. Few men have coined phrases, which have lasted and will last, with such prodigality as the dead statesman. Mr. Gladstone's conversion to Home Rule was christened by him as "The Great Betrayal." Over and over again his originality enabled him to crystallize a thought in a manner which attracted attention. His enthusiasm no man ever doubted, and when enthusiasm seizes a man obstacles disappear like cobwebs. He saw in front something to attain, and with clenched determination and dauntless courage he fought for the attainment of that object. History will tell us how many times he won his battle. History will also wonder

how it was that a man with such splendid abilities should throw away a golden prize with as much apparent unconcern as a child blows a soap bubble. He won the highest place in the House of Commons. He led, and brilliantly led, the Government of the day with singular success. Then in a moment he sacrificed all, and sank into the comparatively insignificant position of a private member of Parliament. The cause seemed so inadequate.

We can never hope to know all the causes of this dramatic episode in his life. But we can estimate much of his action if we remember that Lord Randolph Churchill was a man who possessed in a pre-eminent degree all the disadvantages of genius. No great work was ever done in this world at a slow pace or a low temperature: it is the men or women who feel acutely, rapidly and deeply, who turn out brilliant results. But such men or women do it at a white heat; the very fierceness of their passion burns up their vital energy, and they experience the dreadful re-action of low tension, which means periods of gloom, depression, and erratic conduct. Probably Lord Randolph was in one of these moods when he threw up the leadership of the House of Commons.

This question of temperament lies at the root

of all conduct. *Quot homines, tot sententiæ.* No two individuals are influenced in a precisely similar way by any physical, mental or social influence. See how one man will feel the cold whilst another will revel in it. Watch two students under examination; one will tremble and grow chilly, whilst another will be stimulated by the keenness of contest. No man who is worth his salt passes through life without feeling the sting of disappointment and loss, when it comes to him, or does not show his anger when his best nature is offended. We confess to loving a good hater, but he must hate evil, and if he does this he will love good.

It is not the object of these few remarks to do more than glance at this very interesting personality, whose death cast a gloom over all sorts and conditions of men, friend and foe, rich and poor, Conservative and Radical. Such men as Lord Randolph are the makers of history; they possess the genius of imagination, they gather up in a second the position of the political situation; their keen, ready, and impressionable brain is as sensitive as a photographic plate, and quick as a flash of electricity comes the spark of wit, or wisdom, or satire. And the keener the competition the greater the flash. This is why Lord Randolph often surprised his hearers by the readiness with

which he met the thrusts of his antagonists. There was no hesitation, no flinching, but with a dauntless courage he fought the giants of the Opposition with all the varied weapons of political warfare. And if defeated, he showed that brave, calm courage which is a plant of such rare growth, and is so difficult to cultivate.

Is it not, then, easy to understand how this frail frame was burnt up with the intensity of the fire which flamed within? Either the body will master the soul, or the soul the body. Something must give way, and his particular case was only an illustration of the well-known biological law that the highest organized tissue is the most easily disorganized. In Lord Randolph's organism the brain represented this tissue, and we trace in his erratic genius—we say it with sorrow—his mistakes of conduct. They were but evidence of want of harmony in the beautiful brain action, but another illustration of the sword wearing out the scabbard. In the end nature could stand the strain no longer, and the sad spectacle was afforded us of a man of genius "crossing the bar" at the early age of forty-five years, dying at the top, failing where the very centre of the fire had flamed most fiercely.

What doctors fear is not the amount of intellectual work done, but rather the speed, the

rapidity of its accomplishment. As the century hurries onward to its close the pace of modern life grows quick and quicker, and this acceleration of the action of our mental processes induces a friction which is inevitably fatal. None but those whose nervous organisms are hard, pachydermatous, and invulnerable, can hope to endure the stress and strain for any prolonged period; while the impressionable and sensitive must burn like a flaming torch that soon will gutter into ash and grease.

The environment of Lord Randolph Churchill was unfavourable. The House of Commons is, not to put too fine a point upon it, simply a lethal chamber to a man of his calibre. It is situated in a low-lying part of London, and within its sanitarily insufficient area mental friction reaches a maximum. The constitutions of seven hundred men most certainly are wasted and consumed. Only lately the Honourable Edward Stanhope died suddenly from failure of the heart's action, and the intense weariness or irritability experienced by our law-makers may assuredly be set down more to the surroundings amid which they work than to the work itself. Flesh and blood cannot resist the influence of late hours, irregular meals, high mental pressure, and unnatural excitement. These must and will break

up the strongest organism, and it is to be hoped that the Senate will wisely reflect upon an obvious truism, and so ordain that the legislative machine no longer shall devour the legislators.

MR. GLADSTONE.

WHEN a man eighty-five years old is able to go through the strain of the longest Parliamentary Session on record, and especially when he has to bear further responsibility as Leader of the House of Commons and Prime Minister to the Queen, he must surely possess some extraordinary capacity, and afford some lessons to those who are wailing for "less work." To ascertain the cause of this unusual power, let us briefly consider Mr. Gladstone's life from three points of view:—his physical life; his intellectual life; his emotional life.

If we look at his conformation we shall see that he is a spare man, one who has not developed, as age has advanced, the large stomach and the accumulation of fat which so impede and strangle every function of the body. Part of this leanness is probably inherited, but more is due to his unceasing activity. No man or woman ever will grow

enormously fat if he or she perseveres with physical exercise. When have we known a man at eighty-five who so carried out this law of activity as Mr. Gladstone? Those who live in London have often seen that unusually upright figure, which below the shoulders might have belonged to a man of thirty-five, and they must have been impressed by the rapidity and ease of his movements. It is a known fact that he would often walk for several hours daily, and that until quite recently he actually engaged in such strong physical exercise as chopping down trees. All physical recreation is good for those whose lives are intellectual. Scott, Byron, Dickens, and Wordsworth are instances of this truth.

A good deal of absolute nonsense has been talked about Mr. Gladstone's eating and drinking, and we have heard it said, "That he chews his food thirty-six times, and that he has thirty-six reasons for doing so." However this may be, he is wise in preferring ordinary English diet to the Anglo-French cooking, which is responsible for so much dyspepsia and consequent misery. We may depend upon it that physical exercise and fresh air is the great tranquillizer of the nervous system. Wordsworth composed a good deal of his poetry in the open air. Tennyson did the same, and we have it on record that Mr. W. F. A. Delane, who

built up the reputation of the *Times* newspaper, began life by travelling from town to town on horseback while doing law reports for that paper.

The necessity for exercise in the open air was never more urgent than it is at the present day. The work of the intellectual world is now done at a white heat. The rapidity of transit, the annihilation of space by electric contrivances, all call for an expenditure of vital energy which must be restored, otherwise there is diminished production and bad workmanship. Now it is a well-recognized physiological law that rest does not equal strength. If we turn our thoughts to the larger energies of nature, such as the tides, the alternation of the seasons, the revolution of the earth, do we not find here ceaseless movement, incessant work? Just the same is it with the vital functions of our bodies. The heart, lungs, and other organs are hard workers; they go on with their essential service night and day, from the cradle to the grave, and they tell us with no uncertain voice that work is the order of the world: the watchword of creation. No man will ever accomplish useful results unless he remembers this law. But, and here comes the lesson, the work must be varied. There must be alternations of mental labour with physical recreation, and there must be a recogni-

tion of the paradox that our idle moments are often the best spent ones. The writer once knew a man who used to boast loudly that he never walked a mile at one time in his life; that he could sit at his desk and write for twelve and fourteen hours a day; and he would laugh to scorn any suggestion that the time would come when the negligence of his physical frame would stop his labours. But, alas, the truth came to him suddenly, sharply, and terribly. Those who watched his work noticed a want of quality and a morbidness which was unusual in it; but still he said, "I will not waste my time in staring at trees." He worked on until an attack of heart failure sent him to his grave at forty-two years of age. Doubtless much of Mr. Gladstone's intellectual vigour is attributed to the time which he has lived in the open air. It is absolutely true that there is no antagonism between the physical and intellectual life. Goethe was a swimmer; Alexander Humboldt was a tremendous walker; and Socrates was a robust healthy man who spent much time on foot. Lowell once said, "The way to be original is to be healthy," but no health can be retained which does not embrace in its creed a recognition of the demands of the physical side of human nature. Too frequently do we find men and women saying that they cannot spare the time for walking or riding or boating, whereas

they would soon discover that this very sacrifice at the shrine of health would redouble their capacity for labour, that they would go to their work eager and hungry, and not creep like schoolboys unwillingly to their tasks.

It has been remarked that it is impossible to apply any test to the human brain which will enable us to estimate its powers. Short of actual experience its capacity is an uncertain quantity. Now if any individual were to see Mr. Gladstone sitting amongst a crowd of other men, the intellectuality of the man would not strike him. On the contrary, there is a want of expansion about the upper part of the skull which rather detracts from his personality. The head is of enormous circumference, but it is flattened as if it had been pressed upon. Still we must believe that probably no Englishman ever read so widely and stored up so much knowledge of what he has read as Mr. Gladstone. The writer once saw a second-hand book list which this omnivorous reader had marked, and these markings were placed against novels, books of theological, historical, and classical interest, fly-fishing, brewing, poetry, and philosophy; and it has been remarked by those who came in contact with him that he was not only interested in almost every subject, but he was enthusiastic in his attention to many. We have

ample evidence, also, to show the immense sweep of his mental life.

It is well for us always to remember that a child is born into the world mentally naked. The brain is a substance not physically more important than the substance of the bone; in other words, memory, thought, and emotion have to be gradually developed, and this development must depend upon two factors, viz. the environment of the individual, and the intrinsic capacity of the brain itself. The former we can always accurately estimate, the latter quality we are unable to gauge by any test. It certainly is true that it is not a question of the size of the brain, for some of the greatest noodles have brains as large as Alexander or Socrates, whilst it is equally true that some of the best work of the world has been produced by those whose brains would be regarded as small. It is really a question of quality and not of quantity. The brain should be educated to put itself at attention by an effort of the will. This will enable any and all individuals to perform intellectual feats which they would have thought impossible. We are all conscious of that kind of perfunctory reading, or listening, which is neither more nor less than a day dream. The brain lies idle, and we read the words, or hear them spoken, but they make no impression, and are not remembered.

A man should be a mirror of all he has ever seen or heard or read. Such a brain as Shakespeare's must have been of this quality. No man or woman can possibly become mentally adequate without carefully cultivating this great aid to memory. It makes the scholar, the scientist, and probably the genius. Any one who has watched Mr. Gladstone attentively in the House of Commons, or elsewhere, must have noticed his hand held up to his thirsty ear, catching every word, drinking in every syllable. There is a great art in listening. Watch him again with a book in his hand, see how he clutches the pages and scans with wonderful rapidity, as all students ought to be able to do, whole pages at a time.

A good deal of Mr. Gladstone's intellectual ubiquity is due to the fact that he is an orderly man. The brain may be compared to a cupboard into which we stow a number of different articles. If these are placed in some sort of order we can find them when wanted, but if we thrust the same number of items into the same cupboard in a happy-promiscuous sort of manner, we know what happens. Time and temper are lost in striving to place our hand upon the object sought for. Just so it is with the brain. There are many who pack their thoughts away without order, without system ; yet it must be confessed that

many of this class do manage to drag out just what is most wanted at the moment. But it is a system to be condemned. Far better is it to read less and to reflect more. By so doing our brain will, by a natural power which it possesses, arrange our thoughts for us. But we must give the brain time to digest its food just as we do the stomach. We can also assist the method of arrangement of thoughts by some settled plan of reading. One good rule is, never hurry your reading, notwithstanding the well-known fact that some of the best work of the world has been done at a white heat, done when the pressure has been the most severe. Rossini urged a young composer never to write his overture until the evening before the first performance. "Nothing," he said, "excites inspiration like necessity." Although we call attention to these facts, nevertheless it is better for the man or woman who is leading an intellectual life to adopt some method in reading, and not to read without reflecting. One enormous aid to Mr. Gladstone's perennial mental nature has been undoubtedly due to the diversity of his life. Those who know him best say that he will discuss any subject with almost boyish enthusiasm. Subjects as far as the poles from each other attract him for a time and absorb his whole being; and this is the mental quality which

probably enables him to deal with every question before him with that energy, dash and convincing eloquence which all must and do recognize. This gift is a great power for good or for evil. It moves masses of men and women, it has played a vast part in the history of the world. But this eloquence, to be trusted, must come from such a one as Shakespeare described so pithily: "He hath a heart as sound as a bell, and his tongue is the clapper, for what his heart thinks his tongue speaks."

Every physician who knows anything of his profession must have seen many cases of disorders of the body caused by disturbed emotion. Thus a man may be driven mad by joy or sorrow, or sudden death may be the result of hatred or mental shock. It must be in the experience, not only of the physician, but also of every individual, that the emotions are excited in very different degrees in different individuals. It is for this reason that medical men have always been struggling to find groups of temperaments into which they could classify their patients. Thus we have the nervous, sanguine, bilious, and lymphatic temperaments, but actual experience has proved the impossibility of such divisions. Modern thought has rather had a tendency to separate humanity into optimists and pessimists, but here again failure has followed

the attempts to classify temperaments accurately. The reason is obvious. Humanity is such a variable and varying quantity, so influenced by the condition of the mind, body, or surroundings, that a sunny day will alter any man's temperament. It will not alter the raw material of which his body is composed, but it will alter the emotions and the thoughts, it will often make a poor man happy, it will often lift a man out of doubt into trust. It is this varying state of our emotions which is often so surprising to those we live with, and disappointing to ourselves. Still, it must not be forgotten that some degree of passion is necessary. The schoolboy who climbs trees and struggles in a football match, is only obeying the mimic passion which may drive him in after life to fight for his country, or to perform deeds of heroism, but passion must be the motive power.

The public life of Mr. Gladstone affords abundant testimony to the effect that he is a man of vehement desires. If a certain object is to be obtained, he has always struggled with ardour to grasp that object; and over and over again in his life may be seen evidence which proves that when this special energy is spent he can and does strike out a fresh path for himself without apparently feeling the recoil of his former efforts. It has been this vehemence which has enabled him to continue

so long on the stage of politics where a man has to play his part subject to the hostile criticism of his opponents, and, very frequently, to the envy of his own political comrades. The man whose nature was deeply sensitive, who felt acutely the sting of unjust criticism, could not live in the fierce, exciting, and exacting life of a member of Parliament for so long a time as Mr. Gladstone has done. We know how he has stirred the House by some of his oratorical performances, and within a few hours we have read that he has been translating Homer, or otherwise occupying his time in a manner which showed that his effort was not followed by that exhaustion which men whose natures are what we may call deeply impressionable always suffer from. We doubt whether any man now living possesses this power of switching his mind on to different subjects with the same ease as Mr. Gladstone. It is this power which has contributed in no small degree to his longevity and his retained brain health. It is not an easy matter for men or women by an effort of will to change the whole current of their thoughts.

Only those who watch the effect of passion will be aware of the truth of the old saying, "Sorrow concealed doth burn the heart to cinders where it is"; in other words, those whose feelings find a means of natural expression, recover the soonest

from any calamity. Shakespeare strikes the true note when he says,—

> "Give sorrow words: the grief that does not speak
> Whispers the o'er-fraught heart, and bids it break."

All those who have strong passions which they can and do control must always in the end be greater than those whose passions are their masters, but we can never know how much damage is done to the inner nature of man by this restraint. The savage kills the man who brings him bad news, the civilized man kicks the stone over which he stumbles, the little child screams and dances when its passions are aroused; all these are simple expressions of feeling; expressions which relieve the tension of anger, injury and suffering. Far better would it be for the race if we at times could trust ourselves to give rein to our natural, healthy instincts. Sometimes we see a spontaneous bursting out of national feeling when the right chord is struck. We had an example the other day at an Anarchist's funeral, the pent-up indignation showed itself in the fury of the crowd and the attempt to lynch the mourners. We see the best illustration of this in those universal waves of sympathy which spread over the face of the nation when one of our Royal Family is sick unto death. Then Englishmen perceive that deep down in the

recesses of the nature of the public is a loyal spirit, which nothing will ever eradicate.

There is always a fascination in dissecting the character of any public man, yet how difficult a matter it is. Even those with whom we live, whom we love and know best, have within their breast an inner world which we cannot penetrate. We can never accurately estimate the origin of our own mental, or moral, or immoral actions. How then can we hope to judge with precision of the fountains of thought in others? All we can do is to place before our mind the man and his actions, then to let our thoughts hover round the character without prejudice, to cut away all gossip of the domestic life and private affairs of such an individual, then to ask ourselves to paint an honest picture of the man.

Such a task is difficult, but it is surely worth attempting. Apart from all political aspects, Mr. Gladstone is an interesting personality, and there is not an Englishman or Englishwoman in whom his courage, intelligence, courtesy, and eloquence will not arouse a feeling of admiration.

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